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DOMICILIARY CARE IN THE NEWCASTLE DISTRICT.

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In 1950 The Royal Newcastle Hospital was requested by the Hospitals Commission of New South Wales to conduct a survey of the known cases of disseminated sclerosis in the area. In this survey the medical and social needs were assessed and formed the substance of a report to the Commission.

It seemed that the answer to this problem lay in the provision of medical, nursing and domestic care at home, and the report made recommendations for a domiciliary service both for this group of patients and for the chronically ill in general.

The care of the chronically ill in this community has in the past been unplanned and grossly inadequate. Many of them have occupied "acute" beds in general hospitals. Some have been cared for at poor standard and at considerable cost in private nursing homes.

Such institutions as exist for the care of the elderly do not cater for the infirm as a general rule, and are always overcrowded.

In the late months of 1954 the Hospitals Commission granted permission to this hospital to institute a programme of extramural service to patients in their own homes in the Newcastle district. This is a district of some 200,000 people, sixty miles north of Sydney, dependent in

the main on heavy industry for their livelihood. Some farming and urban communities are included in the population served.

For the purpose of this study the patients can be grouped as follows: (i) a group of pensioners living in the poorer suburbs, generally in substandard homes, often living alone, and often with no near relatives and few interested friends; (ii) a group of elderly folk who have chosen the lakeside district or semirural areas for their retirement, in most cases existing on superannuation, meagre savings or pension; (iii) a general group who are scattered among the average homes of Newcastle, often living with a companion of comparable years or with sons or daughters; these are in general better housed and have better "family resources" at their command than the other two groups. These groups are spread over an area of some twenty miles from Newcastle.

The need for a home care service in this district is emphasized in various ways. (i) The bed count for general hospital needs per thousand of population in the Newcastle district is about 4.5. Hence the demand for hospital beds is constant and pressing. (ii) The scarcity of "long-term" or "chronic" beds, especially for the aged and infirm of the district, is accentuated by the fact that existing State hospitals in Sydney are unwilling to accept admissions from outside the Sydney metropolitan area. (iii) From the viewpoint of the patients' needs, domiciliary care can mean most. It is by the provision of such a service that the families or friends become willing and cooperative units, instead of resistive, fearful and inadequate, in the care of the aged and chronically ill in their own homes. It is surprising how little of material kind is needed, in a large

proportion of families, to make just that difference which does much towards establishing the attitude of cooperation and sense of security necessary to undertake the responsibility of home care. That there exists an interested authority with resources at its command is undoubtedly the most important factor in securing the cooperation of the patients and their relatives.

ORGANIZATION OF THE HOME CARE UNIT.

Control.

It was thought from the beginning that to be successful the control of the service must be the function of a general hospital or similar medical centre. The resources of such an organization become obviously essential as the extent of the service is realized. Hence a service was instituted under the direct control of the staff physician of the hospital, with the cooperation of the patient's own family doctor. This point was considered essential, since the family doctor is expected to provide the day-to-day medical care and is, in fact, a member of the team. Control is exercised through a committee headed by the staff physician, and made up of almoners, nurses, occupational therapists, a representative of the State Department of Social Welfare (in an honorary capacity) and an equipment officer. All members of the clinical staff of the hospital are invited to attend meetings, and are expected to do so if one of their patients is under discussion.

It was thought that existing facilities and community social agencies should be utilized where possible, always provided that the control of the contribution of that agency to the service rested in the hands of the committee.

Units of the Service.

Medical.

The staff physician of the hospital is the medical director of the service. The family doctor is an essential part of the service, and patients can be taken on the service only with his full knowledge and with his cooperation. The full range of consultative medical service of the hospital is available to him on request. Thus patients may be referred to the service either from the clinical units of the hospital after discussion with the family doctor or by the family doctor himself in the case of a patient known to the hospital by reason of recent discharge (the patient's condition having deteriorated since his return home). The family doctor may suggest any variation of the service, to meet the needs of the patient from time to time, by communicating with the physician in charge. Patients may be readmitted to hospital at the request of the family doctor if no other way of meeting the problem can be found.

The Almoner.

When the possibility of home care is to be considered, the almoner is requested to carry out a full social investigation. The almoner is provided with information on medical diagnosis and physical limitations. A visit is made to the patient's home to assess the housing conditions, the family's attitude to the patient and his illness, and the financial situation. The plan of care is explained to the family, the nature of the help that is being offered being pointed out. An assessment is made of the physical requirements of the patient in his own home. The whole of these data are included in a report to the medical officer in charge of the case. If he is of the opinion that the social situation is such that the patient can be managed at home, the report is then submitted to the committee.

Nursing.

When a patient is referred to the service, the nurse in charge is asked to make a report covering the patient's nursing needs. This is compiled by consultation with the ward nursing staff, with full knowledge of the medical diagnosis, the physical limitations, the treatment required and the social conditions. If the patient is judged suitable from the nursing point of view, the nursing service is instituted after discussion by the committee.

The extent of the nursing service varies with the need, and the range is as follows: (i) Full-time nursing atten-

tion. This is rarely needed, and has not been considered necessary for any of our patients. (ii) Twice-daily nursing visits, necessary in the case of a patient who is helpless, perhaps heavy, but who can be moved from bed to chair or day-bed. The nurse may need to do dressings, bathe the patient and attend to the back, get him up and put him back to bed for the night. The committee has used the services of hourly nurses, not on the hospital staff, for this class of case. The hospital nurse visits at intervals in a supervisory capacity. (iii) Daily nursing visits, in which the patient is bathed and assisted out of bed. Some member of the family has been available in the evenings to get the patient back to bed. (iv) Less frequent visiting—for example, twice or three times weekly—when nursing treatment at these intervals is sufficient. (v) Supervisory visiting. This has been used extensively for the purposes of instructing the family in nursing care, supervising the work of a private nurse, keeping the patient under observation, and providing the link with the service which assures the patient and his family of continued interest and availability of care.

Equipment.

In the question of equipment, the final decision is taken after full discussion of the needs by the physician, the nurse, the almoner and the occupational therapist.

The equipment officer on this committee is the purchasing officer of the hospital. He is responsible for storage, maintenance, delivery and return of equipment to the patient's home, save only bed linen, which is supplied and returned for laundering by the visiting nurse.

Equipment is supplied in the first instance on loan from the service.

Where the patient is eligible by reason of his economic status, application is made to the State Department of Social Welfare for supply of items such as wheelchairs, crutches, blankets, etc. When these necessities are made available, the hospital service equipment is returned to store.

The range of equipment made available by the service includes the following: (i) Supply and laundering of bed linen. (ii) Bedding, comprising mattress, macintosh sheet and pillows. (iii) Bed—a hospital bed is provided. It has been found that two types of hospital beds are useful: (a) a full (hospital) height bed for the patient who is completely confined to bed or if the patient is to be lifted in and out of bed; (b) a "low" bed of hospital type if the patient is able to get in and out of bed himself or with assistance. (iv) Bed crane and ring. This device is fitted to the head of a hospital bed, and is used by the patient to pull himself up in bed or to raise his buttocks for the use of a bed pan. (Items (i) to (iv) are referred to as a "complete bed unit".) (v) Toilet equipment—bed pan, urinal, commode, "Daval" type urinal to be worn in cases of urinary incontinence. (vi) wheelchair. (vii) Structural alterations to the premises—e.g., widening of doorways, building of ramps, improved lighting, supply of washing machine.

It has been the practice of the committee to utilize various philanthropic and service clubs in this field. These are specific projects within reach of these organizations, and constitute examples of service of definite benefit.

Occupational Therapist.

The occupational therapy service has been of great value in the physical and psychological rehabilitation of patients who can be transported to this department by ambulance or private vehicle. This is often the one outing of the week available to the patients and is invaluable in the early stages of their socialization. The therapist may suggest home equipment which will allow the patient to make the best use of his capabilities. A home visit may be paid to assess this need.

Housekeeper Service.

A housekeeper service is a medical and social necessity. In this field the existing social agency has been utilized. The committee has been fortunate to have the understanding cooperation of the State Minister and Newcastle

representatives of the Department of Social Welfare. Cooperation has been excellent, and a representative has attended committee meetings regularly. Medical need has been the deciding factor in the provision of the service, and the women employed have been well selected and understanding of the medical and social needs of the patients. At the request of the committee, the Department of Social Welfare has provided the services of housekeepers on a daily basis, ranging from one visit weekly up to five days each week. These housekeepers have done the house cleaning, washing, ironing, marketing and cooking and, last but not least, they have supplied companionship and social supervision in many of our cases. They report regularly to their officer in charge, who is a graduate nurse and attends committee meetings.

Thus reports from the housekeeper service are received regularly, and joint decisions are taken regarding alterations in this service. The patients may bear the total cost, or part or none, according to their assessed ability to pay. The service is responsible then for part or all of this cost.

In outlying districts an approved housekeeper who is not employed by the Department of Social Welfare may be used, or the patient may be subsidized to pay for the housekeeper help. It has been demonstrated that many patients, particularly elderly cardiac patients, are able to exist at home in a medically controlled state if they are adequately nourished and relieved of their heavy housework. The housekeeper service is the answer in this respect.

Field Supervision.

At intervals the physician in charge and the almoner visit the patients in a supervisory capacity. The almoner may pay regular visits to patients who are maintained by housekeeper subsidy or loan of equipment only.

In this way the service is able to maintain a constant estimate of overall need, which is supplemented by reports from the family doctor, nurse or housekeeper.

CASES CLASSIFIED AS TO SERVICE NEEDED.

Equipment Only.

Many families have been able to maintain their chronically ill or infirm members at home by reason of the loan of equipment only. It is surprising that so little can make so much difference in this regard. The following short summaries of cases illustrate this point.

CASE 84546.—The patient is a widower, aged seventy years, a diabetic with cataract and hemiplegia. The supply of a mattress enables the family to accommodate their elderly relative; their finances would be strained otherwise.

CASE 56894.—The patient is a woman, aged forty years, with hypertensive heart disease and episodes of pulmonary oedema. A voluntary agency has supplied a washing machine, which considerably lightens the work of a patient with hypertensive heart disease who has a large family of young children (nine).

In other instances the full range of nursing equipment has made family nursing practicable, only supervisory visiting by the service nurse being required.

CASE 107144.—The patient is a woman, aged 63 years, suffering from gastric carcinoma with cerebral metastasis; she is completely confined to bed.

Housekeeper Only.

Sometimes a housekeeper only is required.

CASE 25854.—This patient, with rheumatic heart disease, is able to remain stable at home, with the service of a housekeeper once a week to do the heavy house cleaning.

CASE 39506.—This patient has a daily housekeeper; otherwise she would have to be accommodated in a hospital. She is aged eighty years, is blind from cataract, and lives alone.

In other cases (55-5522), housekeeper subsidy where distance is a factor has been found satisfactory. This enabled a man, aged 79 years, suffering from carcinoma of the bladder and chronic hypertensive Bright's disease to be with his elderly wife in their own home until his readmission to hospital and death.

Supervisory Nursing Visits.

Supervisory nursing visits on a weekly or fortnightly basis have in some cases provided the "security link" with the service which enables families to undertake care with confidence.

CASE 30347.—The patient is a man, aged seventy-four years, suffering from Paget's disease of bone. Housekeeper help was provided through the Miners' Superannuation Fund, because the wife is blind with cataract.

Daily Nursing by Another Nurse with Supervisory Nursing Visits from the Service.

In some cases care has been provided by a private nurse or by a nursing service on an hourly basis provided by a church organization, the supervisory link being maintained by less frequent visits by the service nurse.

CASE 109842.—The patient was a woman, aged sixty-five years, suffering from hemiplegia and senile dementia. She was demented, incontinent of urine and faeces, completely confined to bed and certifiably insane. She was admitted to hospital on April 15 and discharged on June 26, 1956. She was a pensioner. Her husband had squamous carcinoma of the face. Their daughter, separated from her husband, lived with her parents. The home was a fair standard suburban house.

A bed, bedding, bed rails, a wheelchair and a commode were provided. Daily nursing visits were undertaken by the Methodist Church nursing service, with weekly supervisory visits by the service nurse. The patient's mental state improved rapidly. Bed rails were not necessary; she became partially ambulatory, and was discharged from the service after three months, and although she was still senile mentally she was tractable and could be managed at home.

Various Combinations of Equipment, Nursing and Housekeeper Service.

The cases in this group cover the range up to full service.

CASE 117711.—This patient, with inoperable fungating carcinoma of the colon, was able to live at home with her elderly parents at their request. She was later readmitted to hospital and died there.

CASE 40288.—A female patient, aged forty-five years, suffering from rheumatic heart disease, cerebral embolus and hemiplegia, was cared for by her infirm, seventy-years-old mother. In this case poor family resources were improved by the service to the point at which the patient, a heavy hemiplegic, could be adequately cared for at home.

Readmission to Hospital.

An essential part of the security of the service from the point of view of the family doctor and the families themselves is the assurance of the patient's readmission to the medical centre under certain conditions. This is done if the patient's condition deteriorates, making domiciliary nursing insufficient for proper care (Case 117711—carcinoma of the colon). It is also done during temporary illness or absence of the operative member of the family, as in the following case.

CASE 142109.—A male patient, aged 56 years, was suffering from cerebral thrombosis with right hemiplegia. He was aphasic and walked with assistance. He was admitted to hospital on September 13 and discharged on September 28, 1956. He and his wife lived in a weatherboard house in a close suburban area. His wife, aged forty-six years, was caring for him with the aid of the nursing service. The equipment provided was as follows: a hospital bed and bedding, a bed crane and ring, a commode, a bed pan and a urinal. She became ill with bronchitis, which necessitated the patient's admission to hospital for a short period. He returned home when his wife's health had improved, and the nursing service was recommenced.

The patient may also be readmitted to hospital should another phase of medical treatment or assessment become necessary, as, for example, in Case 55-12881; it was considered that the patient, a hemiplegic, would now benefit from further physical reeducation.

Meal Service.

By the provision of at least one adequate meal daily at the hospital, the man with hypertensive heart disease who lives alone is assisted to remain stable and to live in conditions which he prefers.

RESULTS.

The number of patients cared for from June 30, 1955, to June 30, 1956, was 77, and their average age was 65.35 years. The number of bed days saved was 4499. This estimate is conservative. The count of bed days saved was stopped in each case when reports indicated that the patient no longer needed full nursing care (either by the assistance of visiting nurses or by the family alone). The count also stopped when the patient died, was readmitted to the Royal Newcastle Hospital, or was admitted to another institution. The number of patients classified as bed-day savers was 56. The diagnoses in this group were as follows:

Paraplegia	2
Senile dementia	4
Disseminated sclerosis	1
Arthritis (various forms)	3
Congestive heart failure	10
Carcinoma (various sites)	10
Hemiplegia	16
Senility, blindness and congestive cardiac failure	1
Senility and pneumonia	2
Senility and anaemia	1
Senility and gastro-duodenal hæmorrhage	1
Fractured neck of femur	2
Diabetes	1
Tuberculosis	1
Varicose ulcer	1

The number of patients on the service from June 30, 1955, to June 30, 1956, was 77; the number continuing on the service after June 30, 1956, was 25; the number off the service was 52. Of these 52 patients, 23 had died, three had been admitted to a nursing home, and three had been admitted to the Reception House, four had been readmitted to the Royal Newcastle Hospital, one had left the district, and 18 had improved and been discharged.

The amount of nursing service domiciliary care given from July 1, 1955, to June 30, 1956, is shown in Table I.

The average number of patients per month on the service (including patients who do not need nursing visits) is 24.

The equipment on loan to patients from June 30, 1955, to June 30, 1956, was as follows: complete bed units,¹ 10; bed pans, 9; urinals, 5; walking sticks, 3; commodes, 9; mattress, 1; wheelchairs, 4; rails, 2; walkers, 4; "Davol" urinal, 1.

The cost of domiciliary care to the hospital to June 30, 1956, was as follows:

Medical requisitions	5
Linen	45
Housekeeper service	601
Total	£651
Service department charges (transport £200, work-shop £16)	218
Stores	25
Nursing service	990
Medical service	100
Almoner	400
Total	£1731
Final cost	£2382

COMMENTARY.

Material Gains.

The material gains may be described under three headings, as follows.

Gains to the Hospital.

Such a service has provided an answer alternative to hospitalization for the long-stay, difficult after-care case,

¹ Complete bed unit comprises the following items: bedstead, mattress, mattress cover (plastic), macintosh, bed crane and ring, two pillows.

thus releasing general hospital beds for use in acute illness. Knowing that this outlet exists, the hospital authorities are not unwilling to admit even elderly long-stay patients, since they are less likely to remain a charge on their bed state. The costs of care average £1. 13s. per patient per week, which compares more than favourably with weekly bed cost.

Gains to the Community Generally.

The need of providing expensive hospital accommodation (the alternative) for the care of these patients is avoided to a large extent. Adequate care is provided at a fraction of the maintenance cost. The principle of using existing agencies is carried to the end point in this regard. The patient's own house, power, fuel, food and family nursing resources are utilized to the full. Voluntary service associations and government organizations are used and their services coordinated.

TABLE I.

Period.	New Cases.	Attendance.
1955:		
July	2	46
August	2	42
September	8	82
October	2	115
November	6	170
December	5	186
1956:		
January	5	188
February	4	226
March	5	216
April	5	241
May	7	314
June	5	238
Total	56	2061

Gains to the Families.

The provision of this service in Cases 112757 and 127632, for example, has meant the release of a working member of the family, so that the family income was increased and progress in social and professional life could be reinstituted.

CASE 112757.—The patient was a man, aged fifty-nine years, suffering from cerebral thrombosis; he was dysarthric, reasonably ambulant and able to perform his own toilet duties until his admission to hospital for recurrence of cerebral thrombosis, which left him helpless—a heavy bed patient. He was admitted to hospital on December 7, 1955, and discharged on February 27, 1956. His wife was aged fifty-four years, and there were three daughters. The eldest was a school teacher; the second, a dancing teacher, was not working, as she had to help care for her father. The third was a school-girl with a high intelligence quotient; she was doing well at school and was thought to have a good potential as a student. The equipment and service provided consisted of the following: bed, bedding, bed crane and ring, wheelchair, and daily linen supply; a daily nurse attended and the patient was transported by ambulance twice a week to occupational therapy. Home care was adequate, the second daughter was released to continue her professional career as a dancing teacher, and the youngest daughter was able to remain at school to complete her education.

Gains to the Health and Well-Being of the Patients.

The remarkable and often dramatic improvement which takes place in the physical and mental condition (especially in the older people), when adequate care is provided at home, is sufficient reason in itself for the existence of the service (e.g., Case 109842). The disorientated, the vegetative, the depressed, the non-cooperative patient becomes a member of a familiar social group and plays his part in family life and in the life of his community.

Many times has it been noted that the withdrawn old person in hospital, incontinent of urine and faeces, when visited at home, is found up, dressed and entertaining his

contemporaries in a socially useful manner. The following case is an example:

CASE 142443.—The patient was a woman, aged sixty-eight years, suffering from hypertension with cerebral arteriopathy and dementia. She was incontinent of urine and feces, helpless and demented, completely bed-ridden. She was admitted to hospital on August 20, 1956, and discharged on October 19, 1956. Her husband had died in 1949. She owned her own home in a lakeside area. The daughter, a book-binder, lived at home and cared for her mother. The following equipment and service were provided: a low hospital bed, bedding, bed rails, a bed pan and a linen supply, with nursing visits three times a week. Soon after the patient's return home her mental state improved so much that bed rails were unnecessary. When she was visited she was orientated, dressed, and received the medical officer in her lounge. She was able to take part in a social visit, and was ambulant and quite helpful in the house.

There is no doubt that if the service can be provided, these patients are better in their own homes than they are in institutions, no matter how well conducted.

Gains for the Family with the Responsibility.

The provision of the service, in many cases minimal, has often been the deciding factor enabling a family to have their relatives home from hospital. Some have approached the prospect with apprehension, but have found the situation manageable when the care service is in operation. Some have been antagonistic, but have become cooperative with the service—for example, the following case.

CASE 37505.—The patient was a female, aged eighty years, with generalized seborrheic dermatitis, cataract, and hypertensive heart disease. She had to be assisted from her bed to a wheelchair, and could not read or sew. She was unable to manage her own toilet or skin treatment. She was admitted to hospital on May 28 and discharged on October 19, 1956. She lived in a converted garage in the grounds of her son's home in a lake district suburb. Her living quarters were found to be dirty—her daughter-in-law resented her and gave her the minimum of supervision. The following equipment and service were provided: a hospital bed, bedding, linen, bed rails, a bed pan, a commode, and a wheelchair, with daily nursing visits. The knowledge that material help is available has improved the daughter-in-law's attitude to the old lady. A voluntary organization visits her socially and has provided a wireless set to help her pass the time. Care is adequate in her own surroundings.

The service has meant that an elderly couple can be maintained as a unit, whereas without it one or both would have to be placed in institutions (separate). The following case is an example.

CASE 08272.—The patient was a female, aged seventy-eight years. She was senile, and suffering from bed sores, anaemia and cataract. She was nearly blind, unwilling to get out of bed and unwilling to eat. She was admitted to hospital on September 4, and discharged on October 4, 1956. Her husband, aged seventy-eight years, suffered from congestive heart failure. They were living in a small shed in a slum area, and a daughter cared for them. Nursing visits were provided three times a week, and the result was adequate home care. The husband was recently admitted to hospital and died there.

Fulfilment of the wish to die at home has been made possible with decency and care, and families have found themselves able to cooperate in this, knowing that responsible help is available. The following case is an example.

CASE 111040.—The patient was a man, aged seventy-three years, suffering from hypertensive heart disease, heart failure and coronary disease. He was completely bed-ridden. He was admitted to hospital on October 3 and discharged on December 24, 1955. His wife, aged seventy-two years, suffered from degenerative heart disease. They were pensioners, living in a brick house in a good suburban area. A daughter at home cared for the old couple. The equipment and service provided were as follows: a bed, bedding, a linen supply, and a urinal, with daily nursing visits.

It was the family's and the patient's wish that he should die at home. This was possible with adequate care. He was completely bed-ridden for three months at home prior to his death.

SUMMARY.

1. An approach to the extra-institutional management of chronically ill and infirm patients is described.
2. The importance of unified control of all facets of the service is emphasized.
3. The utilization of existing facilities and services, from the family doctor through government and charitable organizations to the patient's own domicile and family resources, is strongly advocated.
4. The comparative costs are examined.
5. The gains to the hospitals, to the community generally and to the patients and their families in particular are discussed.
6. The need of the patient and his family is the index of the extent and type of service provided.

APPENDIX.

Royal Newcastle Hospital: Estimated Theoretical Maximum Weekly Cost of One Domiciliary Care Patient.

Capital or Initial Equipment:

The weekly cost is based on the cost of depreciation according to the estimated working life of each item.

Cost (£)	Depreciation Written Off	Amount per annum
		£ s. d.
Bed, crane and ring .. 30	10%	3 0 0
Commode chair .. 12	10%	1 4 0
Bed pan and urinal .. 8	10%	16 0
Mattress .. 12	20%	2 8 0
Pillow .. 1	50%	10 0
Sheets and pillow slips (3 sets) .. 12	50%	6 0 0
Cost per annum		£13 18 0
Cost of equipment per week		5 4
		£ s. d.
District nurse 6 visits per week at 9s. 6d. per visit		2 17 0
(This charge is based on the present cost of district nursing visits and includes drugs, dressings, and other medical requisites, etc.)		
Housekeeper service—5 visits per week		5 5 0
Housekeeper fares—say		15 0
Laundering and transport costs		3 0
General administrative charge (store, office, medical, almoner, etc.)		5 0
Estimated theoretical maximum cost per week per patient		£9 10 4

Estimated Average Cost per Patient per Week:

Total cost per annum, £2382 = £46 per week (approx.).
Average of 24 patients on service per week = £1.18s. approximately per patient.

RESERVE AND RESERVE POWER.

By CHARLES ENGEL,
Sydney.

RESERVE is, according to the "Oxford English Dictionary", "something reserved for the future, extra stock or amount". It may be a substance (gold, money) kept on hand to meet probable demands—e.g., bank reserve; or it may be something which, if called upon, may show power—e.g., the reserve troops of an army. Every mobile machine has reserve power, the locomotive, the automobile, the aeroplane etc., producing power in itself. In other cases the machine is connected with a power station, from which energy can be gained in small or large quantities according to need (electric train).

In medicine the term "reserve" is met fairly frequently. In Howell's text-book of physiology (1946), we read about reserve in carbohydrates (glycogen), and in proteins and lipoids. Reserve

air (Hutchinson) is the largest volume of air that can be expelled by a forcible expiratory effort from a position of rest—i.e., at the end of an ordinary expiration, it is about 1000 cubic centimetres. The term "alkali reserve" is used as a name for the total carbon dioxide bound as bicarbonate in the blood plasma and for the bicarbonate only, not for the total base of the blood (Seabury, 1950). "Reserve blood" is about one-third of the total blood volume, which is normally not in circulation, but is stored in reservoirs (in order of descending importance the liver, the veins of the lungs, the venous plexuses of the skin, the abdominal venous system and the spleen). However, this blood can be called promptly into circulation if there is need for it—for instance in stress, in heavy muscular work.

These are passive substances. But there is active substance in every living organism and in every cell of it, some part of which is out of action under basal circumstances. This is in rest, in reserve, but can be readily mobilized if needed and can then perform work. That is the principle of reserve power.

Before I begin to deal with the details of reserve power, I must discuss the concept itself. In many books we find a chapter dealing with it or at least mentioning it: the following are some examples. In the Osler-Christian book "Principles and Practice of Medicine" (1947) we read: "The reserve power of the myocardium disappears in heart failure." On the following page we read about "gauging the reserve power". In Sodeman's "Pathologic Physiology", Ingelfinger writes: "The reserve power of the human liver is so great, that it permits this organ to sustain life in the face of considerable damage to the hepatic cells." But there are many text-books of physiology, of internal medicine, of cardiology etc., in which we do not find the term "reserve power" at all. Apparently the authors of these books did not find it necessary to use the expression. I myself would not agree with these authors. Reserve power is in my opinion something positive, something existing, an important complex, which is best designated by the term "reserve power". The use of the term is, of course, optional. All that it means can be well expressed otherwise; but personally I am convinced that the use of the concept and of the term is very appropriate and very useful, and tells in two words more than any long description. I am not surprised therefore that Roberts (1950) takes three and a half pages to deal with the reserve power of the heart, describing the different grades of cardiac ability in detail. Rushmer (1955) in his book "Cardiac Diagnosis", takes 18 pages to deal with "cardiac reserve". I think that the use of the concept will increase in the future, and I firmly believe that it is worth while to try to deal with the concept of reserve power and with its variations under pathological conditions.

There is no doubt, that every living cell, from the single cell (the amoeba) on, has reserve power. The amoeba, for instance, can change its form and so perform work—its reserve power enables it to do so. Every living cell is a complete entity with a complex of numerous chemodynamic systems in it, in which the chemical energy of digested food can be converted into heat, into mechanical energy and into other kinds of energy—for instance electricity. The reserve power of the cell is the result of the structure of the protoplasm. Not all the above-mentioned chemodynamic systems are constantly in action. It is almost certain that all the different chemical processes that go on in the cell are not in operation permanently and equally over the whole interior of the cell. Every one of these processes takes place in a different, more or less separated part of the protoplasm, in individual functional units. In the interior of the cell in the fluid protoplasm, semifluid membranes are developing (Bayliss, 1926), ever changing, coming and going, with a constant exchange through them. The membranes divide the cell into compartments, each of which contains a special organ (Bayliss), which I would describe as a tiny chemical factory. Possibly it consists only of a heap of specific molecules. It is not easy, as Bayliss writes, to understand how organs can be developed in a fluid; but it is certain that the different vacuoles of the amoeba do not contain the same substances in solution or the same ferments. Every one of these incredibly tiny organs has a special task in the complicated mechanism of the cell. There are, of course, always a few of them with the same task. Under basal circumstances, not all these tiny organs, not even those with the same function, are in action; some are at rest. But as soon as an increased demand necessitates it, more or all of the tiny organs start to work, and eventually all of them are working to full capacity.

The reserve power of the cell is the basic principle of the reserve power of animals higher in the scale of evolution, in which mighty organs—some in pairs—have developed with countless millions of cells. The reserve power of these organs is based on two factors: (i) the immense surplus of cells, a part of which is mostly out of action; (ii) the potential capacity of all the cells for increased work. All the organs of animals (except, perhaps, the heart) have an enormous amount of reserve material and, depending on this, an immense amount of reserve power.

Roughly estimated, the reserve power of every organ and system of organs is about six or seven times that which corresponds to the average power, which acts under basal circumstances. Everyday experience provides evidence of the fact that the removal of one organ of a pair or the removal of a large part of a single organ (thyroid, liver, pancreas) does not upset the balance of the organism at all. This indicates that, normally, not all the cells of both organs or all the cells of the single organ were in action; a large proportion of them was at rest, in reserve.

It is of interest that this fact can be demonstrated clearly or even seen in experiments. Microscopic examination of the frog's kidney demonstrates the fact that normally only about one-third of the glomerular capillaries are open and active at any one time (Bell, 1950), and that the opening of others is constantly changing. Of course, it may happen that more and occasionally all the glomeruli are open. The kidneys then produce much more urine than before. The kidneys of a normal person are able to secrete nearly ten times as much urine with the same specific gravity as is secreted under normal conditions. After the removal of one kidney of the experimental animal, a quarter or a half, even more, can be removed of the remaining kidney and yet the remaining small kidney remnant retains sufficient secretory function and no symptoms of renal insufficiency develop. The secretion of urine and the blood findings, which are influenced by renal function, remain normal, in spite of the fact that the kidney does not possess any regenerative power. The change is simply that the cells of the glomeruli and especially of the tubules of the small kidney remnant become much enlarged. This corresponds to the well-known fact that patients with one kidney (the other having been removed), which is not quite healthy or is really diseased, can remain in relatively good condition for very many years.

It is well known that 80% of the dog's liver can be removed without the fasting blood sugar level being diminished. But the liver, in contrast to the kidneys, has great regenerative power. The small amount of liver left in the animals operated on increases within some weeks to almost normal size. In most recent times it has been found possible to remove the whole right lobe of the liver, which by weight constitutes about 80% of the organ, without producing deficiency of any liver function according to the results of tests. This demonstrates well the great reserve power of the liver.

In animals, nine-tenths of the pancreas can be removed without the development of diabetes, and probably the same holds for man. If the surgeon when performing thyroidectomy leaves a small portion of the gland behind, myxoedema does not develop. Also, if in operations on the thyroid one of the parathyroid glands is preserved, tetany does not develop. The capacity of the bone marrow is to increase production sevenfold.

It can be stated with certainty that the central nervous system has great reserve power. Normally not all the motor cells (the 30,000 to 40,000 large pyramidal cells) of the *gyrus centralis anterior* and the corresponding cells of the anterior horn are in action; some are at rest, in reserve. The whole complex of these cells has therefore a great reserve power. Besides this, all the motor cells are probably capable of sending out stronger stimuli, and certainly at a faster rate than under normal circumstances (see the following paragraph on the reserve power of muscles). The motor cells of the brain contain a substance, the tigroid substance, which according to some authors may be the reserve material of the cells, inasmuch as these granules disappear after great muscular activity.

We now come to the reserve power of the muscles and of the heart. It is well known that for the muscles the law of "all or nothing" is valid. A single muscle fibre reacts with the maximum contraction on the weakest stimulus coming from the nervous system which is capable of causing contraction at all. The single muscle fibre has therefore reserve power only inasmuch as it is able to contract at a faster rate. The reserve power of the whole muscle consists in the fact that, under normal

conditions, not all the fibres of the muscle are in contraction. For the maintenance of muscle tonus, for example, only one-tenth of the fibres are in contraction. But if the demands on the muscles increase, then many more and probably stronger stimuli are coming from the nervous system, and many more or all of the fibres are contracting and at a greater rate.

The heart is, perhaps, the only organ which has no reserve material at all; but in spite of this the heart has very great reserve power.

The heart is a continuous sheet of protoplasm (syncytium) which under normal conditions always contracts maximally, in the same manner as a single muscle fibre. All the cardiac fibres have the same threshold, and they contract as a single unit. The reserve power consists partly in the fact that on increased demand the rate of contraction increases, but even more in the capacity of the heart to expand to a much greater extent than normally on demand. In this way the ventricles are filled to a greater volume, the stretched and lengthened fibres contracting more forcefully, and so the heart is able to expel a much larger quantity of blood into the aorta. Starling and associates have shown that the dog's heart possesses a remarkable reserve power, upon which it draws when confronted with a greater task in increased venous inflow or raised blood pressure in the aorta. The heart was found able to respond capably to an increase in the venous inflow of several times the normal amount. The heart of the man has, of course, the same very great reserve power. For example, normally the heart performs its work with about 70 contractions per minute with a stroke-output of about 70 millilitres. In the most exacting athletic performances the stroke volume may increase to 170 millilitres and the heart rate to 180 per minute. Even if the blood pressure in the aorta did not increase during the performance (actually it does increase), the work performed by the potential energy and expressed in the minute volume is seven times more than under conditions of normal life.

The amount of reserve power of an organ cannot be calculated exactly and given in figures. It can be only estimated approximately. The estimation is made by clinical observation and by functional tests of the organ. It must be kept in mind that if one of these tests of function gives evidence of failure, the reserve power of this function of the special organ has already been diminished to a very great extent.

Reserve power can be diminished and can be increased. It is diminished to a great extent if a large number or most of the cells of an organ are altered by pathological changes (fatty infiltration, degeneration etc.), as, for instance, in *hepatitis epidemica*, in nephrosis, in pancreatitis or in myocarditis. It is greatly diminished if a large number of cells are necrotic—for example, *hepatitis necroticans*, or necrosis of muscle fibres of the heart resulting from coronary occlusion. It is lessened when secondary fibrosis in the organ replaces the necrotic cells. It is diminished if the mechanism of an organ is faulty (auricular fibrillation). But reserve power is certainly not completely lost in a case in which heart failure becomes congestive. It just cannot be utilized; but digitalis may restore the ability of the heart to utilize a large part of the reserve energy.

I have found Roberts's classification of cardiac reserve a very appropriate one, and I think that a similar kind of classification can be used in estimating the reserve power of other organs also. Roberts's classification is as follows: (i) normal cardiac reserve: the heart is able to respond to every excessive demand; (ii) slightly decreased cardiac reserve: the heart is unable to meet even slightly unusual demands without evidence of cardiac insufficiency (discomfort, tachycardia, breathlessness etc.); (iii) severely decreased cardiac reserve: there is evidence of excessive cardiac inefficiency; (iv) completely lost cardiac reserve: the heart is unable to maintain normal circulation even at rest without signs and symptoms of heart failure. Roberts emphasizes that "often patients with hypertension or valvular disease maintain good cardiac reserve until hypertrophy begins to be recognizable" (by physical or X-ray examination). "Thereafter loss of cardiac reserve is prompt and progressive until enlargement can be corrected. Practically without exception patients with recognizable cardiac enlargement have poor cardiac reserve."

However, other authors are not of the same opinion with regard to the connexion of cardiac reserve with hypertrophy. According to Friedberg (1956) cardiac hypertrophy is a compensatory mechanism; after its development normal cardiac function is restored: "It may retain an adequate

reserve for unusual circulatory demands. It is clear that cardiac hypertrophy is not incompatible either with normal activity or with long life."

For renal diseases I think the following classification would be suitable: (i) normal renal reserve: the kidney is able to respond to every excessive demand; (ii) slightly decreased reserve: the kidney is unable to concentrate and dilute normally if overburdened; (iii) moderately decreased reserve: there is a slight increase in the blood urea content if the protein intake is high; (iv) severely decreased reserve: there is an increase in the blood urea content to 100 milligrammes per 100 millilitres and over for many months or years; (v) completely lost reserve: uraemic symptoms are manifest.

For the pancreas I would estimate the reserve power (in respect of insulin secretion) as follows: (i) normal reserve power: the pancreas is able to respond even to excessive demands (intake of a large quantity of carbohydrates); (ii) slightly decreased reserve: there is a marked increase in the blood sugar content without excretion of sugar in the urine; (iii) moderately decreased reserve: sugar appears in the urine when there is an increased intake of carbohydrates; (iv) severely decreased reserve: sugar appears in the urine even if the intake of carbohydrates is normal or lower than normal; (v) completely lost reserve: there is permanent excretion of a large quantity of sugar.

The reserve power of an organ is increased if its cells grow bigger or longer. The volume of the muscle substance of a hand-worker or an athlete is much greater than that of a normal man; the muscle fibres grow much thicker. Such muscles are able to respond to excessive demands; they have a larger reserve power than normal muscles. An increase in the cell volume (hypertrophy) follows if the cells are exposed to constantly increased demands and respond to them. But the hypertrophic organ has an increased reserve power only so long as it is possible for the blood supply of the organ to increase in the same proportion as the hypertrophy develops. If no increase in the capillaries occurs to keep up with the hypertrophy, then anoxia easily develops (hypertrophy of the heart with progressive sclerosis of the coronary arteries).

Long-continued increased function produces hypertrophy of the single kidney in cases in which the other has been removed. Such a kidney becomes much larger than the normal kidney, and may have almost the same reserve power as both kidneys usually have.

The best way to develop the greatest amount of reserve power of the heart and muscles—and, what is more important, the easiest utilization of it—is systematic training, as is regularly carried out by sportsmen and racehorses alike. The reason why this is so, and the ways in which training works are not yet clear, but the possibilities are as follows. The most important is a reasonable amount of hypertrophy of the heart and muscles. During training superfluous fat is removed, and any disproportion between power and body weight disappears. The vital capacity of the lungs increases. The circulation, respiration and excretory function become better adapted to increased need of the body. Various waste products are more readily removed, extra heat is more easily dissipated. The trained man accomplishes the same work with less expenditure of energy than the untrained, and therefore already has more reserve power. The most striking effect—appreciated and pointed out by many trainers—is the newly acquired capacity to ward off fatigue sensations; it establishes anti-fatigue habits, building up morale.

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ONE-STAGE ILEOSTOMY AND PROCTOCOLECTOMY FOR ULCERATIVE COLITIS.

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WHEN ulcerative colitis progresses despite medical treatment, surgery becomes necessary. The present accepted operative treatment has become defined as a result of the collective experience of surgeons interested in the condition, and the following facts have been established.

1. Ileostomy alone will not cure the disease. Ileostomy alone will produce a remission; but the colon and rectum do not return to a normal state even if rested by ileostomy for years. Symptoms from the remaining colon may persist, and the danger of malignant change is ever present (Swinton, 1956; Colcock and Mathieson, 1956). Attempts to close an ileostomy without removal of the colon have failed (Cattell, 1953).

2. If an ileostomy becomes necessary to control ulcerative colitis the disease is always severe enough to require removal of the rectum as well as the colon (Cattell, 1953; Gabriel, 1953; Morgan, 1953; Golligher, 1953; Brooke, 1953). Improved operating conditions and increasing experience have made excision of the colon and rectum less formidable

than formerly, and this has constituted an important advance in the treatment of ulcerative colitis.

3. As a corollary to the former, with one or two exceptions (Aylett, 1953, 1956, 1957) surgeons have found ileo-rectal anastomosis an unsatisfactory procedure in ulcerative colitis. Ileo-rectal anastomosis carries a formidable morbidity. In the writers' experience inflammation within the rectum does not resolve after ileo-rectal anastomosis, nor does it in those cases in which the rectum has been rested for long periods after an ileostomy and colectomy. The functional results may be very bad, and there remains a real risk that cancer may develop in the rectal stump.

In an attempt to minimize the hardships of surgery in ulcerative colitis, the writers commenced a trial of one-stage ileostomy and proctocolectomy in October, 1954. In 1955 an account was published of the results obtained in the first six patients so treated (Hughes and King, 1955). The number has increased to 22, and in this report the results are reviewed.

PRESENT SERIES (TABLE I).

Age and Sex.

In this series of 22 patients there were 11 females and 11 males. The oldest patient was aged 66 years and the youngest 26 years. The average age was 42 years.

TABLE I.

Case Number.	Sex.	Age. (Years.)	Type of Disease.	Duration.	Pathological Findings.	Condition of Patient.	Date of Operation.	Complications.	Result.
I	F.	31	Chronic.	4 years.	Whole colon involved. Benign stricture of rectum.	Good.	5/10/54	None.	Good.
II	M.	48	Relapsing.	20 years.	Colon involved to hepatic flexure.	Fair.	11/10/54	None.	Good.
III	F.	41	Acute.	3 weeks.	Colon involved to hepatic flexure.	Poor.	10/10/54	None.	Good.
IV	F.	56	Chronic.	20 years.	Whole colon and terminal portion of ileum involved. Carcinoma descending colon.	Poor.	21/12/54	Hemorrhage from ileal ulcer.	Good.
V	M.	44	Relapsing.	10 years.	Colon involved to mid-transverse colon.	Poor.	23/12/54	Pulmonary embolism, twelfth day.	Death on twelfth day.
VI	M.	42	Acute.	6 weeks.	Whole colon involved.	Poor.	21/ 1/55	None.	Good.
VII	F.	62	Acute.	6 weeks.	Whole colon involved.	Poor.	23/ 6/55	Adrenal insufficiency, collapse.	Death in 28 hours.
VIII	F.	40	Chronic.	14 years.	Whole colon and terminal portion of ileum involved.	Fair.	14/ 8/55	None.	Good.
IX	M.	29	Relapsing.	1 year.	Colon involved to hepatic flexure.	Poor.	20/12/55	Paralytic ileus.	Good.
X	M.	28	Chronic.	1½ years.	Colon involved to caecum.	Poor.	28/ 2/56	Torsion of terminal portion of ileum on twenty-first day.	Death in 28 days.
XI	F.	47	Chronic.	7 years.	Whole colon involved; carcinoma of hepatic flexure.	Poor.	19/ 6/56	None.	Good.
XII	M.	26	Relapsing.	7 years.	Colon involved to mid-transverse colon.	Fair.	7/ 8/56	None.	Good.
XIII	M.	47	Relapsing.	1 year.	Colon involved to splenic flexure.	Fair.	8/ 8/56	None.	Good.
XIV	F.	62	Chronic.	10 years.	Carcinoma of mid-transverse colon.	Fair.	29/ 8/56	None.	Good.
XV	M.	44	Relapsing.	2 years.	Colon involved to mid-transverse colon.	Fair.	12/ 9/56	None.	Good.
XVI	M.	28	Chronic.	7 years.	Whole colon and terminal portion of ileum involved.	Poor.	15/10/56	None.	Good.
XVII	F.	33	Chronic.	16 years.	Whole colon involved.	Good.	22/10/56	None.	Good.
XVIII	F.	32	Relapsing.	3 years.	Colon involved to descending colon.	Good.	8/11/56	None.	Good.
XIX	F.	35	Relapsing.	5 years.	Whole colon involved.	Good.	9/11/56	None.	Good.
XX	M.	66	Relapsing.	2 years.	—	Poor.	3/ 1/57	None.	Good.
XXI	M.	63	Relapsing.	5 years.	Colon involved to mid-transverse colon.	Poor.	9/ 1/57	Perforation of terminal portion of ileum.	Good.
XXII	F.	28	Relapsing.	7 years.	Colon involved to hepatic flexure.	Good.	13/ 2/57	None.	Good.

Clinical Features.

The severity of the colitis was graded acute, subacute and chronic.

Acute Ulcerative Colitis.

In three cases (III, VI and VII) the disease was severe and of short duration; toxæmia was pronounced, and the whole of the colon and rectum was grossly ulcerated. Within a few weeks these patients became seriously ill despite efficient medical treatment.

Subacute Ulcerative Colitis.

In 11 cases (II, V, IX, XII, XIII, XV, XVIII, XIX, XX, XXI and XXII) the disease pursued an intermittent course. Exacerbations of several weeks' or months' duration were followed by remissions, in which symptoms subsided considerably and in some cases almost completely. The exacerbation which brought the patient for treatment was usually a severe one, and often of longer duration than the earlier ones. Systemic symptoms were present in the exacerbations. The right half of the colon was often normal, but the left half and the rectum were severely ulcerated.

Chronic Ulcerative Colitis.

In eight cases (I, IV, VIII, X, XI, XIV, XVI, XVII) the disease followed a chronic course; remissions were barely noticeable, but the exacerbations were not severe. Toxæmia was absent, but the patients exhibited generally a poor state of health, with a lowered hæmoglobin value and malnutrition of variable degree. The whole of the colon was involved as well as the rectum, and three patients in this group had developed a carcinoma of the colon.

Surgical Treatment.

The surgical treatment in each of these cases was the same. After the decision in favour of surgery had been made and accepted by the patient, arrangements were made for early operation after a short period of preparation. After anaesthesia had been induced, the patient was placed on the Lloyd-Davies lithotomy frame. A self-retaining catheter was placed temporarily in the rectum, so that manipulation of the bowel expelled fluid fecal contents into a bucket.

Through a long left paramedian incision the abdomen was explored for extent of the disease and for the possible presence of carcinoma. First an ileostomy was constructed through a short transverse incision below and to the right of the umbilicus. The right half of the colon was freed, and this was followed in turn by the transverse colon, the splenic flexure and the descending and sigmoid colon. The general condition of the patient was kept under observation, and although the surgeon was prepared to complete the operation at once if the need arose, this was not necessary in this series. Finally the rectum was excised with the colon. The pelvic peritoneum was sutured; the mesentery of the terminal portion of the ileum was attached to the abdominal wall; the abdomen was closed; the mucosa of the terminal portion of the ileum was sutured to the skin; the perineum was sutured around a drainage tube. At the conclusion of the operation an adhesive bag was applied to the ileostomy.

The patient was kept on intravenous therapy until the ileostomy commenced to work. The perineal drainage tube was removed on the fourth post-operative day, and the patient was allowed out of bed on the sixth or seventh post-operative day.

Results of Surgical Treatment.

Mortality.—There were three deaths in this series (Cases V, VII and X), but the last 12 patients have been treated without loss.

The first patient (Case V) died on the twelfth post-operative day whilst having a bath; a post-mortem examination revealed a massive pulmonary embolism.

The second patient (Case VII) died 26 hours after operation. This patient was in a desperate condition at the time

¹ This case was reported in full by Dr. Patricia Wilson in this journal on August 25, 1956; in her opinion death was due to acute adrenal insufficiency caused by a thirteen-day pre-operative course of cortisone.

of operation, but she tolerated operation remarkably well. Her post-operative condition for 26 hours was most satisfactory, when she suddenly went into extreme peripheral circulatory failure with loss of consciousness. Emergency resuscitative measures were of no avail, and she died in fifteen minutes.

The third patient (Case X) was suffering from gross malnutrition to an almost irreversible degree, and the bowel exhibited extreme polypoid changes. His progress after operation was satisfactory at first. On the twenty-first post-operative day he developed severe abdominal pain and vomiting, and examination revealed acute tenderness around the ileostomy. Laparotomy revealed that the distal eight-inch segment of the ileum was blue and apparently non-viable; the cause appeared to be a torsion of the terminal portion of the ileum brought about by the adherence of a loop of small bowel to the divided mesentery of the terminal portion of the ileum. The ileostomy was refashioned, but the patient failed to regain strength and died of bronchopneumonia on the twenty-eighth day after the original operation.

Morbidity.—In three additional cases convalescence was delayed because of complications.

In one (Case XXI) there was a sudden deterioration in the patient's condition on the fifth post-operative day, but he responded well to expectant treatment; two days later fecal material discharged through the main wound. On the twelfth post-operative day a laparotomy was performed, and a perforation was found in the ileum two inches proximal to the ileostomy stoma. The terminal four inches of ileum were resected and a new ileostomy was fashioned, after which recovery was rapid.

In a second patient (Case IV) a profuse hemorrhage from the ileostomy on the seventh post-operative day necessitated a transfusion of five pints of blood. The cause of the hemorrhage was thought to be ulceration within the terminal portion of the ileum.

A third patient (Case IX) developed an ileus, which responded to conservative treatment; however, it lasted eight days, and on one day 250 ounces of fluid were aspirated from his stomach. He has remained well since.

Each of the remaining 16 patients had an uneventful convalescence. All 19 survivors have enjoyed good health since the operation. One patient gained no less than eight stone in weight in 12 months.

DISCUSSION.

For many years the standard surgical treatment of ulcerative colitis involved three operations. At the initial procedure an ileostomy was established; the second operation consisted of colectomy; whilst the third entailed combined excision of the rectum (Cattell, 1953).

In 1951, Gardner and Miller (Gardner and Miller, 1951) reported 17 cases of fulminating ulcerative colitis, in which the initial operation consisted of ileostomy and colectomy, and later, when the patient was well enough, the rectum was removed. This two-stage operation gained considerable support (Ripstein, 1953; Avery Jones, 1953; Goligher, 1953).

Ravitch and Handelsman (1951) recorded a case in which the colon and rectum were removed at the one operation. Goligher (1953, 1954) reported 14 patients treated by primary proctocolectomy, all of whom recovered after smooth convalescence despite the inclusion of two gravely ill patients. A one-stage ileostomy and proctocolectomy was performed in 22 cases in this series. The first patient was subjected to operation on October 5, 1954, and only on three occasions since has it been found necessary to leave the rectum for a second stage.

One of these latter patients was submitted to surgery as an emergency in a country hospital, and Lloyd-Davies lithotomy leg-pieces could not be fitted to the operating table; rather than move the patient during the operation, it was decided to await a second operation before completing the removal of the rectum.

The second patient was submitted to operation just after the series commenced, and it was uncertain how she would tolerate the extra excisional procedure. This patient subsequently died of staphylococcal septicæmia four weeks after operation; the only obvious foci of infection were the remaining rectum and an infected transfusion wound.

The third patient suffered from a subacute or relapsing form of the disease, and in his last exacerbation his abdomen

became distended and he commenced to vomit "fecal" material. Ileostomy and colectomy was performed, and the rectum was removed at a second stage six weeks later.

One-stage ileostomy and proctocolectomy was well tolerated by all patients, and in no case was shock a feature of the operation. In 16 cases recovery was uneventful, and discharge from hospital was possible within two or three weeks of the operation. Two patients developed ulceration in the terminal portion of the ileum, with perforation and hæmorrhage respectively. A third required resection of the terminal portion of the ileum on the twenty-first day after operation, because of torsion secondary to adhesions. A fourth patient developed a severe ileus, a fifth suffered a fatal pulmonary embolism, and a sixth collapsed 26 hours after operation on account of acute adrenal insufficiency precipitated by inadequate steroid administration after a pre-operative course of 1375 milligrammes of cortisone (Wilson, 1956). None of these complications appear related to the extensive one-stage procedure.

The advantages of a single-stage operation are considerable. The ulcerated area is completely removed and the permanent ileostomy is constructed at the one operation. Patients who do well after ileostomy and colectomy find it hard to return to hospital for removal of the rectum. Further, the rectum may be difficult to remove in these cases, because of the deposition of excessive fatty tissue around a very contracted bowel, together with the partial or complete obliteration of tissue planes.

The writers are very appreciative of the tremendous responsibility they accept when advising a patient to have an ileostomy for ulcerative colitis. Furthermore, they are well aware of the magnitude of the operation they recommend in the event of acceptance of their advice. Nevertheless the results in this series of patients subjected to surgery have convinced them that if surgery is indicated, and if the surgeon has special experience in this field, the correct procedure is to construct the ileostomy and proceed to excise the colon and nearly always the rectum at the same time.

SUMMARY.

1. Collective experience of surgeons interested in the treatment of ulcerative colitis has demonstrated the following facts: (i) Ileostomy alone will not cure the disease. (ii) If an ileostomy is necessary, the rectum must be removed with the colon. (iii) Anastomosis of the ileum to the rectum is unsatisfactory.

2. The present communication reviews a series of 22 patients treated by one-stage ileostomy and proctocolectomy.

3. Three patients died after operation, but the last 12 operations have been completed without a death.

4. One patient died of pulmonary embolus on the twelfth post-operative day; a second died from acute adrenal insufficiency 26 hours after operation; a third died on the twenty-eighth day after a second operation for torsion of the ileostomy.

5. There were three cases of serious complications among the surviving 19 patients. Two patients developed ileal ulceration and one a paralytic ileus.

6. One-stage ileostomy and proctocolectomy is suitable for almost all patients who require surgical treatment of ulcerative colitis. It is well tolerated by patients, whilst the convalescence is rapid and no further surgical treatment is necessary.

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DR. ISAAC AARON.

By A. M. McINTOSH,
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THE rapid spread of an epidemic of cholera in England in 1831 led to the establishment of a Central Board of Health. Under its administration local authorities were constituted, and to one of these boards in Birmingham Isaac Aaron was appointed medical officer. Aaron was born in Birmingham in 1804 and attended local schools, but later entered the Medical School at Saint Bartholomew's Hospital, and in 1826 qualified as a Licentiate of the Society of Apothecaries and a year later as a Member of the Royal College of Surgeons. He returned to practise in his native city, and was available for a public health appointment in 1831. He was profoundly impressed by the fact that, although the epidemic extended to within eight miles of Birmingham, there were no cases in the city itself, which was attributed to the fact that it had a good sewerage system and an excellent water supply; this experience of public health service influenced his outlook throughout his career. He interested himself actively in the political activities preceding and following the passing of the Reform Bill in 1832, but later decided to seek his fortune overseas, and in 1838 was fawelled by his friends, who presented him with a massive snuff-box. He was registered by the New South Wales Medical Board early in 1839. It was an unfortunate time to arrive in the Colony, which was entering on a stage of serious financial depression that became increasingly worse in the early 1840's. One of the friends who followed Aaron overseas was a young ivory turner named Henry Parkes, who, although he was later to be regarded as the "Father of Federation", was profoundly depressed by his early experiences, and wrote as follows to his sister in May, 1840:

For the encouragement of any at home who think of emigrating I ought to add that I have not seen one single individual who came out with me in the "Strathfieldsaye" but most heartily wishes himself back at home. Mr. Isaac Aaron who lived at Deritend is practising in this Colony as a surgeon at Raymond Terrace on the river Hunter.

In the prevailing circumstances, medical work in this small settlement did not provide full employment for Aaron, and he found it necessary like other country practitioners of the day to eke out his inadequate income by farming. This kind of existence must have irked him considerably, but he tolerated it for some seven years, when he came to Sydney and commenced general practice. His practice at first allowed him ample leisure, and he became interested in medical journalism.

The "Australian Medical Journal".

On August 1, 1846, appeared the first issue of the *Australian Medical Journal*, the earliest medical publication in the Colony. The proprietor and publisher was William Baker, who was also clerk to the New South Wales Medical Board. George Brookes, the Senior Colonial Surgeon, was the original editor. The journal was published monthly, and copies of the first issue were distributed gratuitously to medical practitioners throughout the Colony. The publisher announced that copies of the journal would be forwarded also to proprietors of similar medical publications throughout the world, and he hoped that they in turn would forward theirs—"the charge for which will be remitted if the *Australian Medical Journal* be not considered an equivalent". It had many features unusual in a medical publication. The early issues contained full shipping information, and a column for births, deaths and marriages was featured on the front page until the ninth issue, when it ceased abruptly. Most of the insertions under this heading had no obvious association with the medical profession. The advertisements covered a wide range of general merchandise, clothing and wine and spirits. Aaron, who was an occasional contributor to the early issues, succeeded Brookes as editor when the latter retired owing to ill health in December, 1846. In the following May he purchased the paper outright and became the sole proprietor. He continued Brookes's policy of publishing numerous extracts from overseas medical journals, but included more local news and, when he could obtain them, more clinical reports. His own contributions were, however, much more critical and provocative than those of his predecessor. His policy is set out in his first editorial dated December 1, 1846:

Briefly then for ourself we have taken the office of Editor with a determination to do the duties appertaining thereto to the honour and advantage of the profession of which we are a humble member. Perfectly independent of adventitious control we shall be enabled to discuss all matters that may require our notice without "fear favour or affection". Our attention will be earnestly directed to all means calculated to induce a friendly and honorable deportment among our professional brethren and to the institution of such measures as may conduce to the cultivation of a proper "esprit de corps" amongst us.

In any censorial remarks we may find it necessary to make on the public professional conduct of individuals we wish it to be understood that such remarks will be indited "more in sorrow than in anger" and that wherever any morbid growth or foul unhealthy ulcer in our body politic may require the application of a "caustic" it will, like the actual cautery in the hands of a humane and skilful surgeon, be adopted solely with a view to the good of the member and the body of which he is a part.

Both Aaron and Brookes urged the establishment of a medical association to promote good feeling and honourable conduct, with a committee to arbitrate in ethical disputes—"to include also a library and an assurance fund to assist indigent practitioners and their families"—very much, in fact, the same considerations as James Robertson had in mind when he established the Australian Medical Association in 1860. Aaron proceeded to apply the "caustic" without respect of persons or institutions. He upbraided the staff of the Sydney Infirmary for their frequent disputes and the committee of the Infirmary for their cavalier treatment of the visiting medical staff—he urged an "open house" policy so that any practitioner could attend any patient he sent in to the Infirmary. He was very critical of non-medical coroners for their extraordinary verdicts, which were usually not in accord with medical evidence, although he admitted that medical witnesses were not invariably well chosen. A review of the annual report of the Benevolent Society for 1846 concludes thus:

We have however extended our notice of this unscientific publication far beyond its deserts. It is a most contemptible affair and we blush for our profession in New South Wales when we think of the possibility of such a thing being seen by the profession in England.

He criticized the constitution and conduct of the Medical Board, particularly in regard to its control of the Vaccine Institution, to which it had appointed Dr. Savage, of whom he did not approve, at a salary which he regarded as entirely inadequate. But his criticism was not always soundly based, as when, for instance, he reserved his greatest sarcasm for what he termed "The Ethereal Humbug", whereby patients were "wilfully made drunk prior to operation"—a procedure for which he predicted that it would enjoy a transient popularity and ultimately be abandoned as useless or injurious. However, he pointed out that it was only the indiscriminate use of ether that he condemned, and in one of the later issues of the journal he included a précis of a lecture by Dr. D. J. Thomas, of Melbourne, describing his successful experience with ether anaesthesia. All this forthright criticism caused a good deal of enmity towards Aaron and adversely affected the circulation of the journal; but although he was aware of this, his fervour continued undiminished until the issue of December, 1847, when he announced discontinuance of publication. His last editorial reads as follows:

We regret to be under the necessity of announcing that the publication of the *Australian Medical Journal* will not be continued after the present number. Two causes have contributed to this result, viz., partly the want of time arising from increased professional arrangements—but principally the want of support from the members of our profession to whose interests as a body our literary efforts have been devoted.

Whether or not our efforts have in any degree conduced to the end proposed time perhaps will show: in the meantime we lay down our editorial pen with the proud satisfaction of feeling that we can neither accuse ourselves, nor be accused by others of in any way since we have wielded it departed [sic] wilfully from the principles with which we set out.

We now take our leave of our friends and subscribers and hope whoever the adventurous might may be who shall follow in our wake that he will bring to his task the same honesty of purpose as ourselves with as much more ability and energy as possible and that the results of his enterprise may be proportionate to his deserts.

The "Hashemy".

Although transportation of convicts to New South Wales practically ceased in 1841, a belated attempt to revive it occurred in 1849, when the ship *Hashemy* arrived in Port Jackson with a complement of convicts who had already been denied a landing at Port Phillip. An indignation meeting was held on June 18, 1849, at which Henry Parkes was in the chair, and Aaron's status in the community is evidenced by the fact that he was asked to move the main resolution: "That Earl Grey Under-Secretary for the Colonies should be removed from office." The motion, which was carried with much enthusiasm, was eloquently seconded by Robert Lowe, who later became Chancellor of the Exchequer in Gladstone's second ministry. Aaron evidently talked down to his audience, as the published précis of his speech consists mainly of a suggestion that as "there was some talk of adding another link to the Colonial Office's shackles by creating colonial titles, he would recommend that William Charles Wentworth should be created Duke of Lash and the Triangle". The convicts were allowed to land, but were sent to remote parts of New South Wales and the Moreton Bay district.

The Select Committee into Quarantine Laws.

In 1848 Aaron gave an address at the School of Arts, Sydney, on "Diseases of Towns", and in 1853 he was asked to give evidence before a Select Committee inquiring into quarantine laws, but he was not very helpful. (He quoted his experience in Birmingham.) He was very critical of existing quarantine laws, which he thought unreasonably stringent and therefore oppressive and wasteful. At the time there was much confusion, in which Aaron shared, about the exact nature of infectious diseases—a fact which greatly reduced the value of his otherwise excellent recommendations. Asked whether he had any further helpful

suggestions to make to the committee, he concluded his evidence thus:

Yes. The immediate and energetic adoption of sanitary measures in the City itself without which it is my firm opinion that in spite of any quarantine you may enforce, however stringent, one or other of these diseases may and will at one time or another break out epidemically: the kind of disease determined by the peculiar meteorological conditions at the time. Several I need scarcely mention have already appeared either sporadically or epidemically as typhus, scarlatina, whooping cough, erysipelas, etc. Of the sanitary measures alluded to the most important are, an efficient system of sewerage, a plentiful supply of water, and a systematic cleansing of streets, alleys, etc. These means will do infinitely more than the most stringent quarantine regulations to prevent the occurrence of epidemics and are the only means by which when they do occur, their severity may be modified and their extent limited.

The Philosophical Society.

Aaron interested himself in the revival in 1855 of the Philosophical Society of New South Wales (later the Royal Society), and in September, 1856, read before the Society a paper on "Sanitary Reform". The dissatisfaction with prevailing hygienic conditions is evidenced by the fact that the Registrar-General, Christopher Rolleston, read a paper on "The Sanitary Conditions of Sydney", and Dr. William Bland one on "Sanitary Reforms in Towns and Cities", both in 1857. Aaron's address was published in the Society's journal, *The Sydney Magazine of Science and Art*, in February, 1858.

Aaron could speak with knowledge and authority of the sanitary conditions of Sydney, because he had since 1849 been a District Officer of the Sydney Infirmary and Dispensary responsible for Macquarie and Bourke Wards. He said that aggregation of vast masses of population invariably meant increased liability to disease, owing to lack of sanitary precautions. The main factors in promoting ill health were lack of adequate drainage, imperfect disposal of sewerage, lack of ventilation and temperature control in houses, pollution of the air by noxious trade exhalations and neglect of personal cleanliness. He quoted with approval, as representing his own views, an article written in *The Times* regarding the Report of the London Board of Health for 1849:

It is not remarkable that diseases so externally different as plague, typhus, scarlatina, yellow fever, influenza and cholera should have been thought to depend each on its own specific contagion but the report before us enumerates the following important conditions as characterising the entire class: "They are all fevers: they are all dependent on certain atmospheric conditions: they all obey similar laws of diffusion: they all infest the same sort of localities: they all attack chiefly the same classes and for the most part persons of the like ages and their intensity is increased or diminished by the same sanitary and social conditions. In fact there is not wanting evidence to show that epidemics in all ages have resulted from the same infraction of sanitary rules and that the particular forms assumed by each at its outbreak is determined by the accident of atmosphere or season. What is influenza one year is cholera the next, what is plague in one latitude becomes typhus in another."

Holding these views, he had little regard for quarantine laws, *cordons sanitaires* and the like. He held that in appropriate circumstances epidemic diseases arose spontaneously, the exact type being determined by prevailing atmospheric and meteorological conditions. Contagion was unimportant. If prevailing circumstances caused one case, they could equally cause numerous others. With his ideal Birmingham he contrasted Sydney, instancing gross overcrowding in filthy, insanitary dwellings, mostly small and ill-constructed. Rents were high, though few had privies, and these most defective and causing pollution of water supply. In the city at large there were malodorous slaughter houses, and soap factories, and gross pollution of the atmosphere by smoke—the lungs of the city were being alienated when needed as open spaces—all conditions leading to intemperance, debauchery, prostitution and resultant ill health. He considered that the factors

most helpful in avoidance of infection during an epidemic were "nourishing and temperate diet, regular habits, avoidance of cold and fatigue, cleanliness, tranquillity of mind, residence in open clean situations". His recommendations were as follows: provision of a sewerage system and adequate water supply, smoke control, exclusion of noxious trades and cemeteries from cities, construction of macadamized roads (to be regularly flushed), provision of baths and wash-houses, improved standard of housing, increased parklands and playgrounds. All very fine, but at that time, alas, a counsel of perfection.

The City Health Officer.

The first Municipal Council in Sydney was elected in 1842. It was faced with a prodigious task for which there was insufficient financial provision, and was subjected to severe criticism. In 1854 three paid commissioners were appointed, but their efforts did not meet with general approval, and in 1857 further elections were held. The new Council called for applications for the position of City Health Officer at a salary of £400 *per annum* with the right of private practice, and Isaac Aaron was appointed. He immediately wrote to 50 medical officers in the city, inviting their cooperation in regard to such matters relating to his department as came under their notice, with particular reference to the existence of epidemic or contagious diseases; he said that the response was very gratifying. One of the first matters brought to his attention was the incidence of plumbism due to the use of lead pipes for the water supply. He suggested that, if no innocuous material was available to replace the lead, the pipes should be coated internally with varnish or some other material impervious to water.

One of the conditions of Aaron's appointment was that he should be in attendance at the Town Hall daily from 10 to 11 a.m. "for the convenience of parties requiring his services"; but the scope of his duties gradually increased, and his private practice suffered proportionately. His first quarterly report to the Council was an excellent appreciation—or rather condemnation—of the hygiene of Sydney, which, he said, deserved the title of "City of Cesspools".

No people can be moral where decency is so thoroughly outraged and no city can hope to escape the ravages of disease where cleanliness is so completely neglected. It is inevitable that one or other of the great scourges of civilisation will come amongst us. The sanitation must be improved at whatever cost.

His recommendations were practically identical with those included in his recent address to the Philosophical Society. The report concluded as follows:

In Ancient Rome a Crown was decreed to him who in battle should save the life of a citizen. The lives of thousands of your fellow citizens, gentlemen, threatened not by the sword of a foreign enemy, but by insidious attacks of a native-born foe are in your hands. Save them and the approval of your own consciences and the lasting gratitude of your countrymen will be your reward.

In subsequent reports he referred to the same defects in sanitation more specifically and in greater detail. In particular he directed attention to the necessity for control of common lodging houses, made more imperative than ever by the influx of Chinese and other immigrants who crowded into any available vacant building with most primitive sanitary provision or frequently none at all. On the other hand "registration and control of common lodging houses in England had by enforcing certain conditions of cleanliness and preventing overcrowding, extended to vagrants the same immunity from disease which improved dwellings had secured to the industrious labourer and artisan". He emphasized that efficient hygiene was complicated by close settlement in ill-planned, narrow, badly aligned, uneven streets littered with all manner of animal and vegetable refuse, particularly since the collection of garbage had been discontinued. All this was due to years of neglect and would be the more difficult and expensive to correct in proportion to the delay in tackling the problem. He was particularly interested in an epidemic

of scarlet fever of great severity in 1858, which presented some unusual features.

A remarkable feature in the scarlatina epidemic of the present season has been the unusually large number of cases followed by dropsy. This is doubtless to be attributed in a great measure to a want of sufficient care after the fever and in the subsequent stage when the skin peels off but I confess that this will not explain the full extent of this evil nor can I satisfactorily account for it.

The "Reports of Medical Cases" published in London in 1827 by Richard Bright might have supplied the answer.

The Tank Stream provided its own problem:

Once alas a woodland rivulet flowing in pristine purity from the native forest and at the mouth of which England's first cargo of moral pollution was discharged: but now a foul sluggish streamlet straggling along its devious course amidst a collection of articles which would make a London or Parisian chiffonier's fortune.

In spite of Aaron's persistent advocacy, few of his recommendations were adopted. There was a feeling in the Council that they had not the necessary authority to carry out the reforms suggested. Aaron agreed, but thought they could do a great deal with their existing powers, although these were admittedly often weakened by adverse decisions of magistrates. Some of the Council considered his appointment unnecessary, and that it had been forced on them by legislature; accordingly they argued that his salary was in excess of his value to the Council, and on March 7, 1859, they resolved to reduce his salary to £100 *per annum*. (They had recently decided to pay an inspector of slaughterhouses £300 *per annum*.) When Aaron wrote asking to be advised of the reason for this action, he was informed that it was due to "want of present power to carry out more effectually the important duties which properly belong to such an office". He protested that he had always given his official duties priority over his private practice, which had also suffered from the hostility of people who had been prosecuted or compelled to remedy certain sanitary defects on their premises. He was convinced that a full-time salaried medical officer should be appointed. He later implied that some members of the Council were themselves personally responsible for certain of the defects he had brought under notice. However, the Council gave scant consideration to his letter, defeated a half-hearted attempt to increase his salary to £250, and decided to adhere to their previous decision. From the report of the meeting on April 11, 1859, it is obvious that although a minority of the Council thought he had not been fairly treated, there was little real support for Aaron, and he quite realized this, as he wrote on April 14, 1859: "I feel I can no longer hold the appointment of Officer of Health for the City with due regard to my own credit and self-respect, to the honor of the profession of which I am a member, or to the sanitary requirements of the City." His resignation was accepted, and on May 2, 1859, Henry Graham, M.D., was selected from eight applicants to fill the vacant position.

Later in 1859, Aaron gave evidence before a Select Committee appointed to investigate the conditions of the working classes. It was an important committee, with Henry Parkes in the chair. From his work as a District Surgeon of the Dispensary and recently also as City Health Officer, Aaron could speak with first-hand knowledge. He emphasized the appallingly foul, insanitary conditions under which many people lived, and pointed out particularly that because of housing difficulties and high rentals, even frugal, industrious people were compelled to herd together in one room. He said that the infantile mortality was half the total mortality, owing in his opinion to improper feeding, to defective ventilation of their sleeping accommodation, and to the fact that in a great many instances they were treated by druggists rather than doctors. He held that it was imperative that the Municipal Council should have authority to deal with infractions of sanitary laws; at that time, when sewerage installations were provided, there was no means of compelling house owners to connect them. Intemperance and prostitution were rife in the city, and in that regard the

discovery of gold had been a curse to many sections of the community, as husbands had deserted wives and families, who then resorted to drink and prostitution. Aaron said that there should also be medical supervision of assisted migrants, many of whom had chronic diseases, particularly tuberculosis, and had been led to believe that conditions in New South Wales would cure them.

The Principal Medical Officer.

When transportation to eastern Australia ceased in 1840, the garrison troops in the Colony were greatly reduced, and military defence became more and more the responsibility of the local authority, although the last British troops did not leave Sydney until 1870. Numerous volunteer units were formed, mainly infantry, with one permanent artillery battery. Medical officers were recruited for this force, but exact details of their duties are difficult to ascertain. Aaron was one of the first volunteers, and attained senior rank as an honorary staff surgeon. He was the first Principal Medical Officer of the Volunteer Force in New South Wales. The Army Medical Officers formed an association, which was the first organized body of medical men in the Colony. They met once a quarter at Victoria Barracks to discuss matters of common interest, with the emphasis rather on the social aspect. In 1870 the Association established the *New South Wales Medical Gazette*, the first number of which appeared in October of that year. The editorial duties were shared by three members, Aaron, Frederick Milford and R. D. Ward; but after the first year Milford was the sole proprietor and editor. He retained his interest until April, 1875, when, because of increasing professional duties and lack of support, he relinquished it. The last issue of the *Gazette* appeared in October, 1875. In 1871 Aaron retired from the Volunteer Force and was succeeded as Principal Medical Officer by Robert Dalzell Ward, who was the first medical practitioner to settle on the north side of Sydney Harbour.

The Australian Medical Association.

Aaron was a foundation member of the Australian Medical Association, established in 1858 by Dr. James Robertson "for the promotion of mutual respect and good fellowship amongst the members of the profession, the consideration of such matters as would lead to the general advancement of it, and the collection of a benevolent fund for the use of poor and sick fellows, their widows and orphans". After a promising start the Association languished; Aaron, who was secretary for several years, fought valiantly to stem the gradual decline. He was one of a committee appointed to wait on the Colonial Secretary to urge the introduction of a Medical Bill. He contributed a paper on "Medical Statistics of Darlinghurst Gaol for 1867", and participated freely in all the discussions. In view of his attitude to ether anaesthesia in 1847, it is interesting to note that in 1864 he vigorously opposed the use of chloroform in obstetric practice—he regarded it as altogether too dangerous. At the final meeting of the Association in March, 1869, Aaron, together with Milford and W. J. Williams, was appointed a trustee for the future administration of the Benevolent Fund, a position he retained until his death. The assets of the fund at that date were £400; in 1934, when it was wound up, the value of its assets was £2784.

The Medical Officer to Darlinghurst Gaol.

Aaron's brusque manner and the amount of time he devoted to other interests interfered with the development of an extensive private practice, and he gladly accepted part-time appointments. He was a District Surgeon in Bourke and Macquarie Wards for the Sydney Infirmary and Dispensary from 1849 until 1867 (for which his remuneration never exceeded £50 *per annum*), and for the last eleven years of his life he was medical officer to the Darlinghurst Gaol and Reception House, a post which involved attendance at executions. In this latter position his work was frequently criticized in Parliament by a few members, who sought every opportunity to embarrass him. It was alleged that he treated numerous patients as

malingers who subsequently died of actual disease, and although this charge was disproved beyond all doubt, it was frequently repeated. The case of one Watkins in 1874 provoked a very violent outburst. Watkins, admitted to gaol to await trial, was found to have a hydrocele of four years' standing. He desired that this should be tapped; but Aaron, who thought his trial would take place at an early date, declined to do so, as the tapping might cause some inflammation and prevent Watkins's appearance at the trial. Watkins lodged a complaint and was examined by Dr. Bedford and Dr. Alleyne, who agreed entirely with Aaron, and thought there was no urgency about the tapping and that Watkins exaggerated his symptoms. Aaron promised Watkins that if he was committed to gaol he would be treated; but this, owing to "the impatience of temperament and irritability of manner of the surgeon", was not made quite clear to the prisoner. When the trial was deferred, the hydrocele was in fact tapped. There was some suggestion that Watkins desired to have iodine or some similar fluid injected, but this Aaron denied. The Inspector of Prisons in his report wrote as follows:

Patience and command of temper in dealing with prisoners, however trying the circumstances may be at times, are essential to the satisfactory discharge of his duties by a Prison Surgeon and I have repeatedly impressed on Dr. Aaron the necessity for exercising these qualities and I have done so on this occasion.

When the matter was discussed in the Legislative Assembly, Aaron was attacked, under parliamentary privilege, in most violent, intemperate language. He was represented as one who "had no fear of God in his heart and went to the Gaol with a demoniacal intention of increasing the sufferings of unfortunates under his care". "There was never anything in the history of barbarism so shameful as this." The patient's sufferings were described as excruciating, and to emphasize the point members were regaled with an account of the symptoms of acute orchitis read from a surgical text-book. *The Sydney Morning Herald* protested against the indecency of the discussion, which it did not fully report. The appointment of a Select Committee to inquire into the case was demanded. Henry Parkes defended Aaron, whom he said he had known in England, where he had occupied important positions and had been regarded as a man of great skill and attainments. His manner was brusque and rough, and this want of suavity had in his private practice injured him materially, although there was never any question of his skill, nor did the gaol authorities doubt his humanity:

He said what he meant—he called a spade a spade sometimes even before he knew it was a spade, but he carried out his gaol duties efficiently and well.

He had to deal with a peculiar type of patient who was prone to mangle in order to escape work, and detection was not always easy. Parkes would not agree to the appointment of the proposed committee to inquire into this specific case, but said that he would arrange for an inquiry into the general medical treatment of prisoners.

It was very difficult for Aaron to do anything by way of reprisal for these repeated unmerited attacks on his professional character, but he did his best when he met the principal offender in the street and told him he was "a damned blackguard"; for this he was promptly haled before the court and fined £2 with 8s. 6d. costs of court for making use of language likely to provoke a "breach of the peace which however did not do so".

Aaron was an enthusiastic Freemason and attained high office in the craft. At the time of his death he was President of the Unitarian Church in Sydney. During his active practice he lived in Pitt Street, near Market Street; but when he died in 1877, at the age of seventy-three years, his residence was located in William Street.

Isaac Aaron was a forthright, independent character who always saw the path of duty clearly before him and followed it unswervingly, regardless of consequences. With more tact and a spirit of compromise he might have

attained greater success in all his efforts; but these qualities were quite foreign to his character. He was a man of wide general and professional knowledge, and despite his natural asperity of manner was regarded with great affection by the few who contrived to know him really well. He devoted himself throughout his life to maintaining the interests and promoting the standards of medical practice throughout the Colony, and was one of the outstanding professional figures of his time.

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ANÆSTHETIC AND ALLIED CONSIDERATIONS IN RELATION TO CHILDREN'S ORTHOPÆDIC OPERATIONS.

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MANY of the operations performed on children for orthopædic disabilities, fractures or dislocations require a light Stage III anæsthetic, carefully administered, but present no special problems other than those of anæsthetizing children and victims of accidents. This paper is concerned with those groups of operations which have unusual features requiring particular methods. Such operations are manipulations concerned with the correction of congenital defects, major orthopædic operations, arthrography and the application of plaster casts enclosing the head and neck.

Manipulative Correction of Congenital Defects.

Congenital dislocation of the hip, *talipes equino-varus*, and *metatarsus varus* are the most common of the congenital defects treated by a series of manipulations followed by the application of plaster casts. The ages of the patients are usually between 14 months and four and a half years. Each child has a number of anæsthetics, rarely less than four, and frequently many more in bilateral or resistant cases.

Because of the need for repeated anæsthetics and the small size of the patients, the rectal administration of thiopentone was considered desirable; but it was found that in the dose usually employed (one gramme per 50 pounds of body weight) the ensuing sleep was insufficiently deep for either the removal or the application of a plaster cast, so that the thiopentone given *per rectum* needed to be reinforced by inhalation anæsthesia. In our early cases the agent used was ethyl chloride followed by ether to light Stage III depth of anæsthesia. More recently nitrous oxide and oxygen has been substituted for ether, with, it is believed, a reduction in the physiological disturbance of the patient following the anæsthetic.

The procedure is as follows. The child is weighed pre-operatively, if he is in a plaster cast, the average weight of such a cast is deducted (e.g., a double hip spica for a

three-year-old child weighs three and a half pounds). Atropine is administered orally two hours before operation in double the dose one would inject. In the anaesthetic room 10% thiopentone solution is administered rectally in a dose based upon one gramme of thiopentone per 50 pounds of body weight. In subdued light and with quiet surroundings, sleep comes in about six minutes. Five minutes are allowed to pass while sleep deepens, and ethyl chloride is then administered without waking the patient. As soon as the child will tolerate the ethyl chloride mask on his face, he is lifted onto the operating table and a mixture of 80% nitrous oxide and 20% oxygen is administered with a face piece. The depth of anaesthesia is probably light Stage II, approximately the state of "amalgasia" described by J. Harold Klock (1955). This usually suffices for the whole procedure, but if a painful manipulation is to be performed, cyclopropane (2% to 5%) is added for the time, and later discontinued. The success of each anaesthetic is recorded, so that for subsequent anaesthetic administrations the dose of thiopentone may be varied if necessary.

Major Orthopaedic Operations.

For the purpose of this paper the term "major orthopaedic operations" includes spinal operations, open hip operations, femoral osteotomies and the insertion of Smith-Petersen nails into the femur. In the past, such operations on children have carried a considerable mortality and morbidity, due to haemorrhage and prolonged anaesthesia in a patient who was frequently small, frail and anemic. An attempt has been made to overcome the dangers by minimizing haemorrhage, by blood replacement and by the use of light anaesthesia.

A pre-operative haemoglobin estimation is made and the patient's blood group is determined. Immediately before operation an "intravenous drip" is set up. Atropine is injected into the tubing, followed by a small dose of thiopentone and gallamine injected together. After intubation has been performed, nitrous oxide, oxygen and trichlorethylene are administered by spontaneous respiration. When the patient has been put in position, prepared and draped, the surgeon infiltrates the whole operation area with a solution of lignocaine (0.4%) with adrenalinic (1/250,000). The use of this solution reduces haemorrhage during the subsequent operation, and by its local analgesic action enables the depth of anaesthesia to be reduced to just sufficient to secure unconsciousness and immobility. Diathermy is used to stop bleeding. Blood is usually given, with respect to the blood loss, the pre-operative haemoglobin level and the child's size. We have been pleased with the post-operative condition of the patients; some who were anemic before operation have appeared better after the operation, as sufficient blood had been given both to replace the blood loss and correct the anaemia.

Arthrography.

In the initial investigation of a patient with congenital dislocation of the hip in this unit, it is usual for an arthrogram to be taken. After a radio-opaque solution has been injected into the hip joint, X-ray pictures are taken. Fairly early in our series, a child aged 16 months abruptly developed cardiac arrest after arthrography. The anaesthetic administration (thiopentone *per rectum*, ethyl chloride and "open drop" ether) had been uneventful previously. Fortunately complete recovery followed cardiac massage. Such a case leaves one in the curious position of not being greatly wiser even after the event; there is no way of knowing whether the iodine compound used was related to the accident, or whether the cardiac arrest was a manifestation of the low tolerance to anaesthetic agents often shown by children suffering from severe congenital defects. As a practical measure we have modified our methods. We now use only the weak strengths of sodium acetate (25% and 30%), and after the X-ray photographs have been taken the solution is aspirated from the joint. On the anaesthetic side, nitrous oxide and oxygen have been substituted for ether, as mentioned in the section on manipulations and the application of plaster.

The Application of Plaster Casts Enclosing the Head and Neck.

Plaster casts applied for fractures and dislocations of the cervical part of the spine create some difficulties for the anaesthetist; anaesthesia must be maintained during the application of the plaster, and later, recovery must be accomplished with the patient's head enclosed in plaster. Of the various methods used the following has worked well.

The patient is anaesthetized with thiopentone, ethyl chloride and trichlorethylene. An oral airway with a side-arm is inserted, and through it six litres per minute of trichlorethylene vapour in oxygen are insufflated. During the application of the plaster, a light Stage III depth of anaesthesia is maintained. When the plaster cast has been completed, the patient is turned to a prone or semi-prone position. A sucker is kept at hand, and oxygen is administered through the airway. Close observation by an experienced attendant is maintained till consciousness has returned.

Summary.

Some problems in relation to orthopaedic operations on children are discussed. Satisfactory techniques which have been used in the instances mentioned are as follows: (i) For manipulations and the application of plaster casts, thiopentone given *per rectum*, nitrous oxide and oxygen, with the addition of cyclopropane (2% to 5%) for patients insufficiently anaesthetized by the nitrous oxide. (ii) For major operations, nitrous oxide and oxygen with minimal trichlorethylene general anaesthesia, together with local infiltration of lignocaine and adrenaline; great attention is paid to haemostasis and blood replacement. (iii) For arthrography, anaesthesia as for manipulation and plaster cast application; weak strengths of sodium acetate are used; when the X-ray photographs have been taken, the sodium acetate is removed from the joint by aspiration. (iv) For the application of plaster casts enclosing the head and neck, trichlorethylene and oxygen general anaesthesia maintained by insufflating the anaesthetic gas through an oral airway with a side-arm; great attention is required post-operatively, particularly with regard to the dangers of vomiting or obstruction.

Acknowledgements.

The patients in this series have attended Mr. E. Price's orthopaedic clinic at the Royal Children's Hospital, Melbourne. The attending surgeons have been Mr. E. Price, Mr. F. Stonham and Mr. P. Williams. Dr. Margaret McClelland, Director of Anaesthesia, has been kind enough to inspect this paper.

Reference.

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CONSIDERATIONS IN THE DIAGNOSIS OF A BREAST TUMOUR.

By C. A. C. LEGGETT, M.S., F.R.A.C.S., F.A.C.S.,
Brisbane.

THE accurate diagnosis of a breast tumour involves every doctor, from the remotely placed general practitioner or the recent graduate in the casualty ward to the specialist surgeon responsible for definitive advice and treatment. No one of us can escape responsibility in this matter if we are consulted by a patient complaining of a lump in the breast.

In most cases the patient must be able, and moreover feel able, to put her trust in the chief of all medical practitioners—the family physician. The more readily a woman will confide a fear concerning her breast to her family doctor, the higher stands that man in his profession, and the more likely is an accurate diagnosis to be made. It is interesting to observe, as a consultant, the relatively large number of suspicious breast lesions sent by some doctors.

The Initial Attitude of the Doctor.

I can never see any virtue in ridiculing a patient who comes with unnecessary fear concerning her breasts. This attitude may deter the patient from coming at a later date, or the possibility may exist that the doctor has actually failed to find an early lesion.

The doctor must act with caution and circumspection, because the patient, consciously or unconsciously, may mislead him. I have seen patients consult a doctor concerning another trivial matter as an excuse to ask about the real fear. I have known a woman about to take leave of her busy doctor, and just at the very door and in the face of a full waiting room, mention the fact that she has noticed an abnormality of her breast. This imposes a severe test on the integrity and patience of her doctor. I know of one such case in which the physician made an incomplete examination and the carcinoma was missed for months.

A friend of mine, who is a specialist physician, has detected a number of unsuspected malignant tumours of the breast during the last ten years because he has built his practice on thoroughness of physical examination.

We must recognize the tension and anxiety of the woman when she comes with a lump in the breast and regulate our attitude accordingly. Consider the anxiety of the woman who comes home from visiting a friend dying of carcinoma of the breast and discovers that she too has a lump. Recently I have diagnosed a carcinoma of the breast in the sister of a woman still in hospital after operation for amputation of the breast.

We must respond to this position by sincerity of manner and thoroughness of method. If we are obviously serious and thorough, our reassurance will be doubly comforting. On the other hand, if our verdict is an unfavourable one, we will have laid the foundation upon which all further advice will be accepted with confidence.

Because of fear, a patient may seek to make the diagnosis of carcinoma improbable by giving an inaccurate history. Within the last month I was consulted by a patient who stated that the lump had been present and unchanged since the birth of a child 17 years before. She persisted in her story, and it was only after the greatest persuasion that she would submit to biopsy, the macroscopic finding on which was positive. When she realized that she had had an amputation, she was willing to admit a more recent change in the character of the lump.

I mention all these aspects because a proper approach is more likely to lead to accurate diagnosis and adequate management.

Necessity to Consider All Factors.

Conclusions as to diagnosis are drawn from many small particulars accumulated during the whole course of the consultation. In addition, an accurate analysis must be made of all the factors brought to light both in the history, past and present, and by the physical examination. It is necessary therefore to collect evidence from all sources very carefully when making a final assessment, and not to rely solely on palpation of the lump.

Age.

It is a great mistake to regard the young woman aged under 35 years as being safe from cancer of the breast. A lump in the breast in a woman between the ages of 25 and 35 years must be treated very seriously indeed. The tumour itself may not present classical physical signs, and many neoplasms in this decade are highly malignant. Moreover, both patient and doctor may regard the lesion as unlikely to be malignant and so delay diagnosis.

Cancer of the breast can occur at any age. However, the incidence of breast cancer rises progressively during each decade until it reaches a maximum incidence in the decade between 55 and 65 years.

Family History.

Any hereditary tendency to breast cancer is neither proved nor disproved by statistical surveys; but there does seem to be enough evidence to regard a family history of cancer as being important. I think the best way to regard

the position is to recognize that there exists a familial excess of breast cancer. A history of cancer of the breast in sisters or mother is significant information.

General Factors.

The pregnancy and lactation history, as well as a history of gynaecological disease, is not vitally significant in relation to breast cancer. Neither, of course, is marital status, although in a very large series, Wainwright found the incidence in single women to be more than double that in a married control group.

Menstrual history is important. A tumour appearing in the post-menopausal era has a high chance of being malignant; but on the other hand, tumours arising from the presence of "chronic cystic mastitis" will occasionally present for the first time after the menopause. In a younger woman the date of the last menstrual period is important in relation to the physical findings. A lump present in the premenstrual phase may completely disappear after the period, and I think it is always reasonable, in the absence of clear-cut evidence of malignancy, to see and examine the patient again after the ensuing menstrual period. I think this is, overall, a safe procedure and will often make diagnosis more accurate.

A history of therapeutics with oestrogens or digitalis preparations may be significant. Every now and again I see a patient who has been taking huge doses of oestrogens ordered by the physician to relieve the symptoms of chronic cystic mastitis. There is an unproved but sinister link between the oestrogens and known carcinogenic substances, and I am not prepared to order large doses of oestrogens to a middle-aged woman with gross breast disease.

The relation of trauma to breast cancer is important. A large number of patients give a history of major or minor trauma as an antecedent of the appearance of the lump. As far as we know, ordinary trauma does not cause cancer of the breast. However, an injury may draw the patient's attention to the presence of a pre-existent, painless, unnoticed breast tumour. Difficulty in diagnosis does occur when a substantial haematoma occurs in the breast and this is followed by a residual mass. In my experience, this difficulty usually occurs in a fat elderly woman with vascular disease. This makes the clinical problem more difficult. Fat necrosis in my clinical experience is rare, and the diagnosis should be made only by the pathologist. A residual mass following haematoma formation, if not clearly subsiding, must be excised.

Discharge from the Nipple.

A discharge from the nipple means some form of mastopathy. At least 70% of patients with a blood-stained discharge from the nipple have either a duct papilloma or a frank carcinoma of the breast. A sero-sanguineous discharge associated with a definite tumour in the breast should be regarded as a breast neoplasm after the age of 30 years, and radical treatment is justified. It must not be thought that a serous discharge necessarily means innocency. Nipple discharge means that the doctor must be alerted to the presence of disease and highly suspicious of the presence of a neoplasm.

Pain.

Most neoplastic tumours of the breast are painless in the first instance. There is usually a complaint of some discomfort after the patient has noticed a lump, but often the patient is reassured by the absence of pain. Lewison puts the matter nicely: "Patients must be taught never to neglect a lump in the breast merely because it is painless, doctors must be taught never to regard a lump in the breast as benign merely because it is painful." Approximately 20% of patients with a carcinoma of the breast have noticeable pain when presenting to the physician.

Physical Examination.

It is not necessary to re-emphasize the basic physical findings in carcinoma of the breast. It is reasonable to consider certain aspects of this examination which I have found of assistance.

First of all, I must emphasize the value of inspection of both breasts in various postures of the patient. My assistant has the patient sitting on the edge of the examining table about the mid-point of its length. A strong mobile light is in position at the foot of the couch. The breasts are inspected with the arms at the sides, above the head, and on the hips. We should be orderly in every physical examination, and the following serial observations are suggested in inspecting the breasts: (i) relative size, (ii) relative symmetry, (iii) nipple level, (iv) localized abnormality of a breast, (v) nipple retraction, (vi) condition of the skin of the breast and nipple.

One of the most valuable early signs of carcinoma of the breast is the presence of early dimpling of the skin. Gentle elevation of the breast with the hand will often increase the prominence of early skin retraction in the upper half of the breast. If the patient bends forward so that the breast falls away from the chest wall, early dimpling in the areolar region and the lower half of the breast is displayed.

Palpation.

The breasts are palpated while the patient is both sitting and lying. Before commencing palpation, ask the patient to indicate the position of the lump. This is basic, especially for the inexperienced. Then examine the normal breast. Two things I would emphasize in palpation. First of all be routinely systematic, and secondly be gentle. Gently apply the tactile sense of the pads of the fingers.

Difficulties are experienced with the deep tumour in the very large breast, with a large tumour in a relatively small, firm, virginal breast, and at times in the very pendulous breast. The last-mentioned breast lends itself to bimanual palpation at times.

I can never think that the examination of the axilla is very important in the first instance. If the axillary nodes are obviously enlarged and the site of the metastases, the primary lesion is usually obvious, and the importance of the axillary examination lies not in diagnosis, but in choice of management. Let me mention, however, the basic fact that the axilla can be best examined with the patient in the sitting position and with complete relaxation of the pectoral muscles.

Conclusion.

Consideration has been given to a number of factors which are of importance in the correct diagnosis of breast tumours. These include the all-important attitude of the first medical man consulted and various relevant matters concerning history and physical examination.

Reviews.

Diagnosis and Treatment of Peripheral Vascular Disorders. By David I. Abramson, M.D., F.A.C.P.; 1956. New York: Paul B. Hoeber, Incorporated. 10 1/2" x 7", pp. 555, with illustrations. Price: \$13.50.

THIS book is aimed at providing the family doctor with a concise account of peripheral vascular disease. It is organized in three main sections.

The first section is directed to an analysis of the symptoms and signs. It is comprehensive without being pedantic. The description of special tests and their application is sufficient to interest the reader, without emphasizing research procedures. Considerable emphasis is given to eliciting physical signs. The technique of examination and possible pitfalls are carefully discussed. Illustrations indicate correct procedures, and excellent coloured plates depict classical findings. Two chapters are devoted to the differential diagnosis of physical findings.

The second section deals with all the vascular disorders in routine fashion.

The third section aims to give a review of the basic sciences as they are related to vascular disorders.

It is rather disappointing to see a major work in this subject placing so little emphasis on surgical aspects of treatment. The author admits a medical bias in discussing treatment; however, it seems impossible to cover this aspect of the problem adequately without more reference to surgical therapy.

There is very little emphasis on recent work. The author has avoided wide discussion of controversial subjects, keeping to the generally accepted views. Most readers will be pleased to see that this work is free of volumes of statistical data; however, the scientifically minded will miss numerical support for various statements about the incidence of complications and the success of various types of treatment. The chapter on pulmonary embolism falls far short of the information required by those practising surgery. Little emphasis is placed on the venous system, perhaps insufficient to satisfy some readers.

There are 18 tables summarizing the differential diagnosis of various disorders. The illustrations are of excellent quality; the general layout is pleasing; the book itself is beautifully produced.

This is an interesting contribution, which should chiefly help those who meet vascular disorders only occasionally.

Lupus Nephritis. By Robert C. Muehrcke, M.S., M.D., Robert M. Kark, F.R.C.P., F.A.C.P., Conrad L. Pirani, M.D., and Victor E. Pollack, M.B., M.R.C.P.E.; 1957. Baltimore: The Williams and Wilkins Company. Sydney: Angus and Robertson, Limited. 10" x 6 1/2", pp. 156, with 43 illustrations. Price: 35s.

RENAL INVOLVEMENT in systemic (disseminated) lupus erythematosus is an increasingly recognized occurrence. It is also the main cause of death in patients with this disease. At any moment in time two of three such patients have renal lesions of varying extent and severity, and renal lesions attributable to the disease itself are found in 75% at autopsy. R. C. Muehrcke, R. M. Kark, C. L. Pirani and V. E. Pollack have extended and summarized their studies of these renal lesions and of the disease itself in an article, published in *Medicine*, to which reference was made in "Current Comment" in the issue of August 17, 1957. This article has now been reprinted, but unfortunately not extended, in monograph form.

A Synopsis of Surgical Anatomy. By Alexander Lee McGregor, M.Ch. (Edin.), F.R.C.S. (Eng.); Eighth Edition; 1957. Bristol: John Wright and Sons, Limited. 7 1/2" x 5", pp. 320, with 766 illustrations. Price: 32s. 6d.

THE eighth edition of Lee McGregor's "Synopsis of Surgical Anatomy" now appears, a quarter of a century after the first, thus manifesting its usefulness and popularity. Sections have been added on diaphragmatic hernia, paragangliomata, adrenalectomy and injuries to the large lymph ducts. A curious defect in the book is the absence of any mention of the surgical approach to main arteries. This defect persists, together with several others which were pointed out in the review of the seventh edition. One of the more serious of these is the persistence of the old mutilating incisions for infections of the hand. The only worthy motive of a reviewer in pointing out deficiencies is the hope that correction will result from the review, and that a good book will become even better; and this "Synopsis" is a good book.

Science News: 44. Edited by Archie and Nan Clow; 1957. Mitcham, Victoria: Penguin Books Proprietary, Limited. 7 1/2" x 4 1/2", pp. 128, with four illustrations. Price: 4s.

New Biology: 23. Edited by M. L. Johnson, Michael Abercrombie and G. E. Fogg; 1957. Mitcham, Victoria: Penguin Books Proprietary, Limited. 7 1/2" x 4 1/2", pp. 128, with 16 illustrations. Price: 4s.

RECENT NUMBERS of two popular series issued as Penguin Books have been sent to us for review. They are No. 23 in the "New Biology" series and No. 44 in the "Science News" series.

Articles in the "New Biology" number deal with the sexuality of flowers, sound in the insect world, *Daphnia* (the water flea), the mechanism of protein synthesis, water blooms, the axolotl and some recent biological books. The article on protein synthesis is of most direct interest to medical readers. It assumes a basic knowledge of biochemistry, but is capably written and will be found most informative.

In "Science News", No. 44, the only directly medical article is one on blood. This is presumably written for the non-medical person, but it certainly does not talk down to him, and there is much recent knowledge in the field of haematology that the average medical practitioner will find illuminating. Another article, which should at least interest the ear, nose and throat specialist, deals with speech engineering. An article entitled "A New Outlook in Inorganic Chemistry" will have some surprises for those

who learned their inorganic chemistry more than a decade or so ago, and it will help to bring them up to date in the remarkable advances that have been made in this field. Of general biological interest is an article on sexual dimorphism, an article on the first trans-Atlantic telephone cable tells a fascinating story, and other articles deal with ultrasonics in industry and the new magnetic materials, the ferrites.

The two series of which these numbers are representative make fair demands on the intellect of their readers, and presuppose a sound general education. However, none of the articles will be beyond the capacity of the medical practitioner who likes to read about what goes on in the scientific world outside his own particular interest.

Patients and Doctors: The Layman's Guide to Doctors and Doctoring. By Kenneth Walker; 1957. Mitcham, Victoria: Penguin Books Proprietary, Limited. 7½" x 4½", pp. 192. Price: 5s. 6d.

In writing this little book, Kenneth Walker has aimed to explain to the lay reader the nature of diseases in general and the principles that are involved in medical treatment, with the idea of cultivating better understanding between the doctor and the patient. He has done it very well. It is hard to imagine that what he has to say would encourage morbid or hypochondriacal tendencies in the patient, and the intelligent reader should find it illuminating and helpful. Most medical practitioners will enjoy reading it, and no doubt will find much of real interest.

Clinical Neurosurgery: Proceedings of the Congress of Neurological Surgeons, Los Angeles, California, 1955. 1957. Baltimore: The Williams and Wilkins Company. Sydney: Angus and Robertson, Limited. 9" x 6", pp. 276, with 150 illustrations. Price: £5 10s.

This is a well-prepared book dealing with certain selected problems of particular importance to the neurosurgeon and allied workers. As such, its value is then limited to a relatively small number.

The principal contributor is Dr. Carl Rand, of Los Angeles, one of the older and outstanding American neurosurgeons. He gives an excellent review of all clinical aspects of pituitary tumours from his own extensive experience and a very wide survey of all the important literature on the subject. He also gives the detailed results of much work he and his collaborators have done in the study of the pathological changes in the brain after head injuries. Lastly, he discusses his own and others' experience in the management of two rare cerebral complications of pregnancy. This paper provides information absent from most standard works on neurosurgery or obstetrics.

The second part of the book is devoted to consideration of three topical problems. First, the clinical syndrome of carotid artery thrombosis and the possibilities of surgical treatment are discussed. Then there follows an excellent dissertation on consciousness and coma, with emphasis on the role of the reticular formation. Finally there is a symposium on the use of hypothermia in certain vascular conditions of the brain.

The book thus consists of a collection of papers on aspects chosen because of their importance to the neurosurgeon; it is a useful work to have for reference to any of the subjects. However, it comes into the luxury class, as those who would be most interested already have access to much of this or similar work in their own libraries and special journals.

Practical Refraction. By Bernard C. Gettes, M.D.; 1957. New York: Grune and Stratton. 9" x 6", pp. 176, with 58 illustrations. Price: \$6.50.

It would be hard to over-praise this little book. It deals with the art rather than the science of refraction, and it fills a real need.

Opening with an intelligent and straightforward account of equipment and methods, it goes on, always plainly, concisely and helpfully, to discuss the whole field of this work. Outstanding are the brief sections on objective and subjective methods, cycloplegics, presbyopia, contact lenses, reading aids and ophthalmic lenses.

Wisdom, experience and common sense combine to provide a work ideally suited to the needs of the diploma candidate and the refractionist. Every ophthalmic surgeon would profit from reading it, even if only from the pleasure of recognizing what he already knows to be true but seldom finds in print. Just as the pleasure of hearing a new or better performance of a Bach concerto largely derives from recognition, but partly also from the illumination of phrases

previously obscured, so will the experienced ophthalmic surgeon find points of interest and information in this book.

The author does not minimize the importance of a basic knowledge of optics; he emphasizes it. However, this book could be read profitably by a beginner with little but the elements of optics in his grasp. Beginners should read it; it will give direction and purpose to their further studies. They will get a flying start in the backbone subject of ophthalmology, and will gain in a few nights a basis that will make their work in clinics far more profitable.

The figures are original, simplified and clear, and they add much to the value of the book. Altogether this is an excellent publication.

Books Received.

[The mention of a book in this column does not imply that no review will appear in a subsequent issue.]

"Psychosomatic Medicine: A Clinical Study of Psychophysiological Reactions", by Edward Weiss, M.D., and O. Spurgeon English, M.D.; Third Edition, 1957. Philadelphia and London: W. B. Saunders Company; Melbourne: W. Ramsay (Surgical) Limited. 9½" x 6", pp. 578, with 8 illustrations. Price: £5. 5s.

The authors are respectively Professor of Clinical Medicine and Professor and Head of the Department of Psychiatry at Temple University Medical Center, Philadelphia.

"Slit Lamp Gonioscopy", by George Gorin, M.D., and Adolph Posner, M.D.; 1957. Baltimore: The Williams and Wilkins Company; Sydney: Angus and Robertson Limited. 9" x 6", pp. 200, with 67 illustrations. Price: 77s.

The purpose of this manual is to initiate the ophthalmologist in the principles and techniques of gonioscopy and to guide him in the interpretation of his observations.

"Biochemical Disorders in Human Disease", edited by R. H. S. Thompson, M.A., D.M., and E. J. King, Ph.D., D.Sc., F.R.I.C.; 1957. London: J. & A. Churchill Limited. 9½" x 6½", pp. 858, with 121 illustrations. Price: 90s.

The aim is to assemble, relate and interpret the known facts concerning biochemical disorders that underlie or are associated with human disease, with the presentation of a coherent account of modern concepts of both diagnosis and treatment.

"Clinical Proctology", by J. Peerman Nesselrod, B.S., M.S., M.Sc. (Med.), M.D., F.A.C.S., F.A.P.S.; Second Edition, 1957. Philadelphia and London: W. B. Saunders Company; Melbourne: W. Ramsay (Surgical) Limited. 9½" x 6", pp. 318, with 72 illustrations. Price: £3 10s.

A proctologist writes for general practitioners, physicians and general surgeons.

"Exudative Tuberculous Pleurisy: With a Statistical Analysis of Prognostic Factors According to a New Method", by Sven-Olof Berlin; Acta Tuberculosea Scandinavica Supplement 40; 1957. Copenhagen: Ejnar Munksgaard. 9½" x 6½", pp. 136, with 10 illustrations. Price: no price stated.

An analysis of material from a large series of cases collected in Stockholm.

"A Study of the Course of Pulmonary Tuberculosis After Treatment with Thoracoplasty", by Alexander Tuxen; Acta Tuberculosea Scandinavica, Supplement No. 39; 1957. Copenhagen: Ejnar Munksgaard, for the Norwegian Research Council for Science and the Humanities, Oslo. 9½" x 6½", pp. 196, with illustrations. Price: no price stated.

Based on the treatment of nearly 1000 patients.

"Lectures on the Scientific Basis of Medicine: Volume 5, 1955-1956"; British Postgraduate Medical Federation, University of London; 1957. London: The Athlone Press. 8½" x 5½", pp. 386, with illustrations. Price: 45s.

The subjects "illustrate the fronts on which advances are being made by research and the new knowledge that may shortly affect the practice of medicine".

The Medical Journal of Australia

SATURDAY, OCTOBER 5, 1957.

IT MUST NOT HAPPEN HERE.

A PROMINENT VISITOR to Australia from England has pointed out recently that no other country has copied the British National Health Service. It has been in operation for nine years. It has been much praised by those who designed it and by those who run it, and it has been inspected in detail by many visitors. As with Katisha's left shoulder blade, people come miles to see it, but no one in authority has desired it for himself. The fact of the matter is, of course, that it is a highly unsatisfactory scheme in many ways. From certain points of view it has its merits, and superficially it appears attractive, especially to the unthinking general public. In practice, however, it has worked out badly and has not in general proved to be in the best interest of patient or doctor or of the Government which foots the bill. Many Australian doctors who have visited England in the last few years have been depressed by what they have seen of the working of the National Health Service, especially by the sorry state to which it has brought many of our British colleagues. The reality and seriousness of this situation are well recognized by responsible leaders of the profession in Britain today. In his presidential address to the annual meeting of the British Medical Association in 1956, Alexander Hall¹ laid some serious fundamental charges, including responsibility for the decline in the status of the family doctor, at the door of the National Health Service. It is important to note that Dr. Hall emphasized a number of ways in which the British National Health Service varies in its principles from those laid down for such a service by the World Medical Association, "of which", he pointed out, "the B.M.A. is one of the principal member associations—indeed, the originator of it". Since then there has been the unhappy dispute with the Government over the Spens agreement and the anticlimax of the Royal Commission—a sorry state of affairs which might well have been avoided if the profession in Britain had been united. To their real credit the British Medical Association and the profession as a whole seem to have done their best to make the National Health Scheme work despite its unsatisfactory features, but this has been a discouraging job. Perhaps it is too late to hope for any radical change away from this scheme as it is now operating—in a well-worn metaphor, it may not be possible to unscramble the eggs. At the same time, in the words of John Pringle in some

notes circulated to members of both Houses of Parliament by the British Medical Association Council earlier this year, "the mere fact that it has been possible for the profession to suffer the treatment recently accorded it by the present Government is clear evidence that something is radically wrong in the relationship between Medicine and the State in the National Health Service as now constituted", and the Association is undertaking a full examination of the present health services to determine where its fundamental faults lie. Whatever the outcome of this, Dr. Hall's constructive challenge made last year is still operative: "Somehow or other this Association must bend its efforts towards not only preserving but also enlarging the area of freedom and dignity in medicine that still exists within the framework of the National Health Service. . . . We need men of conviction who do not lack the courage to express their opinions clearly, unpopular though they may be; we need a new dynamic in medicine. Let us see that it comes from within the Association."

The significance of Dr. Hall's specific references to the Association will be apparent to all who know what has gone on in Britain, and certain things that have happened since these references were made have only added to their significance. In Britain, as here, the British Medical Association is the one body within the profession which is able to speak for the doctors as a whole. The Royal Colleges and other such bodies by their very nature can speak only for their own sections of the profession. On at least two occasions in Britain refusal to accept the leadership of the British Medical Association and the taking of deliberate action productive of disunity have done irreparable damage to the profession as a whole, with inevitable repercussions in the quality of the medical service offered to the general public. The essential position has been put very clearly in a recent editorial in the *British Medical Journal*: "If the N.H.S., as so many believe, awaits a much-needed reform, it will be re-shaped to the benefit of the public, and of the profession, only if we can compose our differences, close our ranks, and preserve that variety in unity which makes for a satisfactory relationship. To achieve this, magnanimity and tolerance will have to be joined to intelligence and energy."

Both the medical profession and the general public in Australia can learn important lessons from what has happened in Britain. Particularly relevant are two matters referred to in the report of the meeting of the Federal Council which appears in this issue, one relating to suggested changes in the National Health Scheme and the other to the unity of the medical profession. The Federal Council had before it a pamphlet entitled "The Health of a Nation", which was the report of a joint committee of the New South Wales Branch of the Australian Labour Party and the Labour Council. This set out plans for a complete health service free to all, based on the British National Health Service, and advocated its adoption at some future time by the Federal Government. Examination of the scheme put forward shows that it follows closely indeed on the British National Health Service. It has some of its superficial attractions and, what is more important, its fundamental defects. It would be a sorry

¹ *Brit. M. J.*, 1956, 2: 57 (July 14).

² *Brit. M. J.*, 1957, 1: 1463 (June 22).

day if it was ever adopted by an Australian Government and came into operation. There is, of course, no reason for any fundamental change in the National Health Scheme in this country. The present scheme is not perfect in detail, but it is basically sound, and with patience its deficiencies should be overcome. The Federal Council has indicated its willingness to seek a solution that will ensure a fair and effective medical service for the Australian people, and there is every reason to believe that it has the goodwill and support of the Association as a whole in its attitude. In this, however, and much more in the event of an attempt by any government, whatever its party political outlook, to introduce an unsatisfactory scheme, unity within the profession is vital. As the report of the Federal Council meeting relates, discussions have been going on between the Federal Council and the senior Royal Australasian Colleges on this question, and qualified assurances have been received of acceptance of the Federal Council's leadership in medico-political matters. A strenuous attempt is being made to get the full cooperation of the various Colleges and other sectional bodies in Australia, so that on both large and small issues of medico-political character the profession will speak with one voice. That voice must be that of the British Medical Association. There is no practical alternative. In the wise words of the *British Medical Journal*,¹ words spoken from long and bitter experience and as relevant here as they are in Britain: "Unity does not mean singing in dull unison, but it does mean singing in harmony. There is urgent need for still closer consultation between those representing consultants and those representing general practitioners with the Association that represents them both, so that policies may be coordinated and action be made strong and organized by the body set up by the profession to maintain its honour and interests."

The strange thing is that there should be any hesitation in this country about accepting the leadership of the British Medical Association. In Britain it is unfortunately true that many doctors stand outside the Association and so naturally look to other bodies for their leadership, but in Australia practically the entire profession belongs to the Association. It cannot by any fair standards be regarded as sectional in its interests. It is democratically constituted, and every member has an equal right and opportunity to take part in its government or to influence its policy. At present its policy on national health schemes is in full accord with that adopted by the World Medical Association, which represents the best of the leadership of our profession in the free world. It is high time to put aside sectional differences and lesser loyalties and weld a single spearhead for the whole profession.

Current Comment.

THE NATURE OF PAIN.

THE greatest controversy arises from the stimulation produced by challenge to established orthodoxy. W. Gooddy² has taken upon himself the role of challenger. He restates the nature of pain, developing a unitary conception, which is implied to be considerably at odds with

the ideas now current concerning the specificity of pain fibres and the localisation of pain tracts. In the event, the concept he develops is not exclusive but comprehensive and semantically more presentable. It remains an indefinite concept, which rolls the known groupings into another, at present no more or less capable of proof; but by its shake-up it provides a salutary lesson. Merely that we are able to adjust ourselves to commonly recurring problems does not mean that we have resolved them.

The theory is based upon the semantic recognition that pain, a quality, cannot reside in nervous tissue; that "all that the brain receives are the impulses in various quantities at various rates, occurring in what may be described as various temporal and spatial patterns". It is demonstrated that the verbal analysis of pain is quite inept. As Virginia Woolf has said, "English which can express the thoughts of Hamlet and the tragedy of Lear has no words for the shiver and the headache . . . let a sufferer try to describe a pain in his head to a doctor and language at once runs dry". Pain has none of the conventional dimensions; nor properly can it have any such at present.

Pain is then illustrated as conforming to the following ideas, viz., that the feature common to all types of pain is the unusual nature of the cause, and that such a cause produces unusual patterns in the nervous system. The key words here are "pattern" and "unusual". Pattern implies some form recognizable by contrast with a background, or a standard form of which models may be derived in exact reproduction. It is usually spatial, but may be temporal, as in music or dancing. With regard to the nervous system, analysis of patterns is particularly complex. A common analogy used is to describe the impulses as a code of uniform type corresponding to the all-or-none impulses. This will suffice peripherally. Centrally there are continual rhythmic electrical changes, not dependent on external stimulation, about which very little other than their existence is known. It is highly likely, however, that these must exert considerable change upon the final result in the pattern, for they are the background against which the form is identified. Again, a pattern may be of variable size, depending on its relations with the rest of all the other elements capable of contributing to a total pattern. The parameters of a nervous pattern include rate, amplitude, time and space. When attention is directed to the meaning of "unusual", some of this brave show wavers for sheer lack of knowledge of median patterns and the detection width which would constitute unusualness. Unfortunately, this, the hub of Gooddy's essay, receives scant attention.

Central pain has always provided a goad to the notion of pain only from peripheral nerve endings: lesions of the peripheral nerves, posterior nerve roots, cord, brainstem (dystonic), basal ganglia and possibly cerebral cortex may all give rise to pain; also complaints of pain may be forthcoming where we diagnose "psychogenic" pain. Its persistence after a gradually ascending list of blocks or cutting of tracts not only confronts us with great therapeutic problems, but makes more likely the present conclusions that any nervous pathways are potential pain pathways, that all sensations are non-specific except by reference to impulse pattern, and that any nervous pathway may provide impulse pattern of sufficient singularity to be recognized as painful. Alteration of impulse pattern may on this basis march *pari passu* with alteration in the quality of the pain.

STOMATOLOGY.

In recent years the dental profession has exhibited an increasing awareness in its public health responsibilities. The scope of dental education has been widened to include a basic medical appreciation, but it is fair to say that no corresponding development has taken place in medical education. As a result, the majority of medical graduates have little or no appreciation of the clinical pathology of the mouth.

¹ *Brit. M. J.*, 1956, 2:1290 (December 1).

² *Brain*, No. 1, 1957.

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At the University of Otago in New Zealand the importance of this situation has been recognized and for the past 50 years a short course of lectures has been given to fifth year medical students by a member of the Faculty of Dentistry. The Professor of Dentistry, J. P. Walsh, has now published a small book based on the course.¹ It is an attempt to give the future medical practitioner some idea of the professional viewpoint of his dental colleague. Anyone who doubts the need to do this should read at least the first chapter of the book, which by positive precept and salutary example makes the point abundantly clear. The next two chapters provide a brief synopsis of dental anatomy and physiology, and a brief introduction to certain dental pathological conditions.

The discussion on "oral diagnosis" which follows indicates the detailed procedures necessary for a complete dental and oral examination; however, no medical practitioner could be expected to carry out all the procedures enumerated. Two sections on "Oral Diseases Affecting General Health" and "Oral Manifestations of Systemic Disease" are, in our opinion, the most valuable aids for the general medical practitioner.

The concluding chapter on "Preventive Dentistry" indicates the extent of the various problems confronting those who attempt to prevent dental disease. Professor Walsh makes very brief but commendatory mention of the fluoridation of public water supplies as a measure of caries prevention, which is being carried out in certain parts of the United States of America, and states that "this has been shown to reduce the incidence of caries by about forty to sixty per cent". However, recent statistical analyses of certain figures produced in this field have indicated considerable doubt concerning some conclusions related to the amount of caries reduction, and some competent authorities doubt that the fluoride ion is actually the effective factor. It is appropriate to repeat a statement in these columns on May 28, 1956, to the effect that "the question of fluoridation has not yet received universal support even from medical authority". In November, 1956, the House of Delegates of the American Medical Association adopted a resolution stating "that there is a definite need for re-evaluation of the problem of fluoridation of water supplies at this time". Moreover, some reputable medical authorities are not yet convinced of the lack of danger of long-range (15 to 20 years) cumulative toxic effects, particularly in relation to certain classes of patients—e.g., children who are suffering from kidney disease, the aged and the chronically ill. The question is certainly not yet settled, and it is important that attention should be paid to other preventive measures such as are set out in this chapter.

In general, the author and the publishers are to be congratulated on the production of a valuable handbook, which must contribute to closer collaboration between the medical and dental professions, and which emphasizes an idea that could with advantage be copied elsewhere.

A TRAGEDY FOR TRADITION.

It is a pity, although in some ways not inappropriate, that the first light of the dawn of Western medicine in Australia is tinged, if not suffused, with blood, and that not of an honest venesection. Some years ago, in his address to the Section of Medical History at the Australasian Medical Congress in Melbourne, B. Cohen referred briefly to the wreck of the *Batavia* on the Houtman Rocks, off the coast of Western Australia, in 1629. Aboard her was an apothecary whose plan to mutiny and take to piracy was thus forestalled. Instead he established himself as dictator on the island reached by the survivors by the use of methods which a world three hundred years older has not yet seen fit to eradicate.

¹ "A Manual of Stomatology", by J. P. Walsh, M.B., B.S., D.D.Sc. (Melb.), L.D.S. (Vic.), F.D.S.R.C.S. (Eng. and Edin.), M.D.S. (N.U.I.), Hon. Causa; 1957. Christchurch: N. M. Peryer, Limited. 7½" x 4½", pp. 144, with 37 illustrations. Price: 30s.

² M. J. AUSTRALIA, 1953, 1: 840 (June 13).

Before this reign of terror commenced, the commander of the expedition set off in one of the ship's boats to search for water on the adjacent barren mainland; finding none, he sailed on to Batavia, returning some months later with a rescue ship. This, too, the first medical man known to have landed in Australian territory had plotted to seize, but some stalwart spirits who had escaped to a neighbouring island managed to warn the rescuers. Retribution overtook the apothecary, and he ended a remarkable career hanging by his neck in his own erstwhile kingdom. These are the bare bones of a well-nigh incredible story, which Mrs. Henrietta Drake-Brockman¹ has clothed with terrifyingly realistic flesh in her recent novel "The Wicked and the Fair". The researches of the authoress have been most comprehensive, and there is little doubt that she has not had to draw upon her imagination for most of the incidents which she describes. In the portrayal of character her inventive genius has provided a background of psychological conflict which is in remarkable accord with the facts. It is difficult not to believe that all that she sets down did in fact occur; one does not doubt that the survivors' fate has, as she observes, haunted her and tormented her imagination. . . . "Lust, murder, immense evil; mighty endeavour, courage, fortitude. . . ."

Mrs. Drake-Brockman's book is a valuable contribution to Australian literature. Wittingly or unwittingly, she also has made a significant contribution to the history of Australian medicine in spite of the absence of more than passing references to matters of strictly medical interest. Jeronimus Cornelisz, although no Australian *Æsculapius*, has a place in the first chapter of our medical history.

ENVIRONMENTAL FACTORS IN LUNG CANCER.

SMOKING as a factor in the production of lung cancer has received much publicity, and the evidence incriminating it is strong. However, there are those who are not convinced, and it is, to say the least, not the only factor. Important aspects of this other point of view are brought forward by W. C. Hueper,² who has reviewed the role of occupational and environmental air pollutants in the production of respiratory cancers. The epidemiological and socio-economic data indicate that certain as yet undetermined factors were introduced into the human environment some 75 years ago; these appear to have caused a rise in lung cancer frequency in the last 50 years, but have not become active in all countries, regions and communities at the same time and to the same degree, although male inhabitants of urban areas have been most strongly affected by them. Hueper quotes evidence to support his contention that environmental factors other than cigarette smoke most likely account for the causation of these tumours and their recent increase in frequency. The difference in sex distribution he ascribes to the working environment of the breadwinner, while the housewife breathes the relatively clear air of her home surroundings, even though she may smoke heavily. Various types of carcinogenic air pollutants are discussed, such as those found in tobacco, insecticides, incomplete combustion of carbonaceous fuels and certain contaminants from smelting and other industries. There seems no denying that a variety of environmental factors, apart from tobacco smoking, have some relationship to the incidence of respiratory cancer.

"AN ANNOTATED BIBLIOGRAPHY ON THE HISTORY OF MEDICINE IN AUSTRALIA."

In the leading article in the issue of September 7, 1957, in which we discussed "An Annotated Bibliography on the History of Medicine in Australia", by Bryan Gandevia, we omitted to state that it is available from the Australasian Medical Publishing Company Limited, The Printing House, Seamer Street, Glebe. The cost is 35s.

¹ "The Wicked and the Fair", Angus and Robertson, Sydney, 1957. Price: 22s. 6d.

² Arch. Path., May, 1957.

Abstracts from Medical Literature.

PHYSIOLOGY.

Differentiation between Two Forms of Angiotonin.

O. M. HELMER (*Am. J. Physiol.*, March, 1957) reports that, by means of a spirally cut strip of rabbit thoracic aorta, it has been shown that angiotonin exists in two forms. One form, angiotonin II, causes a contraction of the strip. The other, angiotonin I, is inactive. They are equally pressor when injected intravenously in animals. An enzyme in plasma converts the inactive form to the active form. The identical pressor activity can be explained by the excess of the converting enzyme in the plasma of the intact animal, which rapidly converts angiotonin I to angiotonin II. Some patients with hypertension have greater content of the converting enzyme in their plasma than is found in plasma of normotensive subjects. In addition to the converting enzyme, other factors in plasma enhance the ability of angiotonin and catechol amines to induce constriction of the strip of aorta. These factors may sensitize the mechanisms in the muscle which set up the process of contraction.

Respiratory Stimulation During Haemorrhage.

R. T. SCHOPP, T. M. GILFOIL AND W. B. YOUNG (*Am. J. Physiol.*, April, 1957) report that the immediate effects of severe haemorrhage on respiratory rate and amplitude were determined in dogs before and after bilateral vagotomy and isolation of the carotid sinuses. The animals were anesthetized with morphine (three milligrammes per kilogram) given intramuscularly and sodium pentobarbital (15 milligrammes per kilogram) given intravenously. The sino-aortic denervated animals showed no respiratory responses to one to two milligrammes of sodium cyanide. Most of the animals showed immediate respiratory stimulation in response to haemorrhage before denervation, and in a large percentage of these the stimulation still could be elicited by haemorrhage after sino-aortic denervation. The rapid onset of the stimulation in the denervated animals, and the fact that slow withdrawal of blood to produce a certain level of hypotension caused less stimulation than rapid withdrawal, would indicate that decreased blood flow through the respiratory centre may not be the basis for the response.

Utilization of Calories from Alcohol and Wines.

A. F. MORGAN, L. BRINER, C. B. PLAA AND M. M. STONE (*Am. J. Physiol.*, May, 1957) report that the utilization of calories for growth by young rats given an adequate diet, free access to drinking water and supplements of 15% or 20% alcohol solutions or wines of the same alcohol concentration, was equal to that of rats receiving no alcohol if the alcohol calories were calculated as 75% physiologically available. When no additional water was given along with the

alcohol and wine solutions, or when water intake was restricted to the amount taken by the alcohol groups, the intake of diet and growth were at once decreased about equally in the water-restricted, wine and alcohol groups. When 1% cholesterol was added to the diet, all the rats grew better than on the basal diet, and water restriction had less unfavourable effects. The liver fat content of the alcohol groups was higher than that of the others on both basal and cholesterol diets. Both liver and adrenal cholesterol contents were much increased by the exogenous cholesterol in all groups, but least in the wine-fed animals. Hamsters under similar conditions were little affected by water restriction; but growth was decreased on the cholesterol diet, and grossly fatty livers developed containing about half the lipid content as cholesterol. Serum cholesterol content was much increased, least in the wine-fed groups. Restriction of water intake by rats given alcohol solutions appears to account for most of the effects of chronic alcohol ingestion heretofore reported.

Adrenocortical Steroids and the Propulsive Motility of Small Intestine.

D. H. P. STREETEN, B. I. HIRSCHOWITZ, K. S. HENLEY AND H. M. POLLARD (*Am. J. Physiol.*, April, 1957) report that adrenal cortex extract in low concentrations (1:1400 to 1:250) increases the peristaltic contractions of small intestine, and restores to fatigued intestinal segments normal peristaltic activity and the ability to propel fluid against a pressure gradient *in vitro* (modified Trendelenburg technique). Adrenal cortex extract in high concentrations (1:150 to 1:25) reversibly inhibits or abolishes peristalsis *in vitro*. In living adrenalectomized rats, adrenal cortex extract increases the rate of propulsion of dyes along the small intestine in moderate doses (one millilitre twice a day), and decreases propulsion in large doses (five millilitres twice a day). Cortisone, hydrocortisone and corticosterone in the amounts present in stimulant doses of adrenal cortex extract had no effect on intestinal propulsion *in vivo*. Doses of aldosterone (0.1 and 0.5 microgramme twice a day) comparable with the amounts contained in the extract used, and large doses of the electrolyte-controlling steroids, desoxycorticosterone (2.5 and 5.0 milligrammes) and corticosterone (2.5 milligrammes), reproduced the stimulant effects of the extract *in vivo*. It is possible that the effects of aldosterone may be of significance in controlling intestinal motility under physiological and some pathological conditions.

Critical Temperature in Lapps.

P. F. SCHOLANDER, K. L. ANDERSON, J. KROG, F. V. LORENTZEN AND J. STEEN (*J. Appl. Physiol.*, March, 1957) report that skin and critical temperatures of nomadic Lapps, living in the northern part of Norway, have been determined in the winter. Skin temperature measurements taken under the clothing gave values well inside those which correspond to our own comfort, even under very cold outside conditions, indicating that the microclimate underneath the Lapp's fur winter clothing is almost tropical. Studies

on the metabolic cost of maintaining the rectal temperature constant, while sitting naked and pedalling an ergometer wheel in a cold room, showed that the critical temperature in Lapps is about 27°C., which is the same as for naked man living in a temperate climate. These data indicate that the Lapps are not normally subjected to cold stress, and that they do not have any greater physiological insulation than man living in a temperate climate.

Pulmonary Reflexes in Pulmonary Oedema.

C. ARVANIS, A. LIBRETTI, E. JONA, J. F. POLLI, C. K. LIU AND A. A. LUISADA (*Am. J. Physiol.*, April, 1957) have studied the mechanism of pulmonary oedema caused by stimulation of the central nervous system in 33 dogs. Stimulation was obtained by the intracisternal injection of veratrine, or of air or saline under high pressure, or by electric stimulation of the hypothalamus. Pressure changes in the pulmonary artery, left atrium and left ventricle were recorded by means of three catheters introduced through the right external jugular vein and the left femoral artery. Experiments were performed with closed or open chest, and following ligation of the thoracic aorta and inferior vena cava. Lung opacity was studied as a means to estimate the blood content of this organ. Data obtained in closed-chest experiments suggest that a blood shift from the systemic to the pulmonary circulation may be a factor in veratrine-induced pulmonary oedema. This was confirmed by the observation that, after mechanical exclusion of the systemic circulation, no pulmonary oedema occurred while the changes of left ventricular pressure were minimal and inconstant. In these animals pulmonary artery pressure still rose, indicating vasoconstriction, while an increase of lung opacity suggested that the vasoconstriction was greater in the pulmonary veins than in the arteries. Injection of air or saline under high pressure into the *cisterna magna* and faradic stimulation of the hypothalamus caused pulmonary hypertension, even after exclusion of the systemic circulation. In these experiments, a decreased lung opacity suggested that the pulmonary constriction was greater on the arterial than on the venous side. These findings are offered as evidence that the calibre of the pulmonary vessels may be influenced by central nervous system stimulation, an additional element to be considered in the mechanism of pulmonary oedema.

Individual Differences in Regional Sweating.

A. B. HERTZMAN (*J. Appl. Physiol.*, March, 1957) reports that total sweating rates and those on 20 different loci on the chest, abdomen, thigh, calf and dorsum of the foot of five subjects were measured after they had come into approximate thermal equilibrium with various chamber temperatures varying from 35° to 48°C. The topographic distribution of the sweating response was characteristically different in each subject, although total sweating rates and mean body temperatures of four of these subjects were essentially alike at each temperature. Individual differences in regional sweating

patterns were shown also during rising temperature, as well as during induced brief cycles in the latter. Sweating patterns were not related specifically to either skin or oral temperatures, but rather to total sweat output irrespective of how the latter was induced. Certain consistent trends appeared in sweating responses of all five subjects; the skin of the chest and abdomen along a zone just lateral to the mid-sternal line sweated more than the more lateral zones, the rates decreasing progressively as the measurements were made laterally, the lowest rates being observed along the axillary line; anterior and lateral aspects of the thigh and all loci on the calf usually sweated more than the rate of weight loss; the medial aspect of the thigh consistently showed relatively low sweating rates; the lower extremity tended to dominate sweating at lower temperatures, but sweating on the trunk increased more rapidly than that on the calf and thigh at higher temperatures, so that the ratio of regional sweating to total sweating tended to approach unity at 45° C. This effect varied considerably among individuals. These topographic patterns in sweating are thought to be due to facilitation of spinal sudomotor neurons by unknown mechanisms, rather than to individual anatomical differences in sudomotor outflows and in distribution of sweat glands in the skin.

BIOCHEMISTRY.

Cholesterol.

T. GERSON *et alii* (*Arch. Biochem.*, June, 1957) have shown that the addition of linoleic acid or beef-fat to a "fat-free" diet raised the total cholesterol content of rat tissues. Whereas with linoleic acid both ester and free-cholesterol contents of the tissues were increased, with beef fat the cholesterol ester content was increased, but the free cholesterol content was reduced. The addition of (+)-14-methylhexadecanoic acid to a "fat-free" diet was without effect on the free and ester-cholesterol contents of the tissues; 0.1 gramme per rat per week was fed. Whereas the free-cholesterol content of the tissues of the male and female groups was of the same order, marked differences in ester-cholesterol content were found. The male rats of the linoleic-acid and beef-fat groups showed a much greater increase in ester-cholesterol than the females.

Essential Amino Acids.

J. F. VAN PILSUM *et alii* (*Arch. Biochem.*, May, 1957) have studied essential amino acid deficiency and enzyme activity. Complete amino acid diets and diets deficient in tryptophane, in isoleucine or in phenylalanine were fed to rats by both ad-libitum and force-feeding techniques. The in-vitro activities of kidney D-amino acid oxidase and of liver arginase, aconitase, catalase and xanthine oxidase were measured. The activities per milligramme of tissue nitrogen of arginase, aconitase and D-amino acid oxidase did not change in the deficient animals. The activity of catalase and xanthine oxidase per liver decreased in the deficient

animals irrespective of the maintenance of liver nitrogen by forced feeding. The results are compared with those obtained by other investigators when low-protein or protein-free diets were fed. It is concluded that the influence of these deficiencies depended upon the relative priority of the synthetic systems for the amino-acid pool.

Tumours.

H. EAGLE *et alii* (*Arch. Biochem.*, April, 1957) have examined three tissue-culture cell lines deriving from normal human tissue (liver, conjunctiva and intestine) and two lines deriving from human cancer, with respect to their amino acid requirements in comparison with those of a HeLa cell and a mouse fibroblast. With the possible exception of tryptophane, all seven cell lines required the same amino acids (arginine, cystine, glutamine, histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tyrosine, valine); and in the absence of any one of these 12, cytopathogenic changes developed which culminated in the death of the cell. The provision of non-essential amino acids, purines, pyrimidines and NH_4^+ had a glutamine-sparing effect, but did not eliminate the need for this amino acid. Extremely high and non-physiological concentrations of glutamic acid (20mM) did, however, substitute for glutamine. It is not yet clear whether tryptophane is similarly essential for survival and growth, or whether it is merely growth stimulatory for some of the five cell lines studied here. The concentration of the individual amino acids necessary for optimum growth varied somewhat among the six strains; but there were not significant or consistent differences in this respect between the lines deriving from normal and from malignant tissues.

Bone.

H. LEES AND A. C. KUYPER (*J. Biol. Chem.*, April, 1957) have shown citric, malic, aconitic, succinic and fumaric acids in compact bone in concentrations of 750, 5.5, 3, 2.5 and 0.2 milligrammes per centum respectively. These amounts correspond to about 230, 3.5, 3, 1.0 and 0.4 times the concentrations of these acids present in liver. Lactic acid, pyruvic acid and a trace of α -keto-glutaric acid are also present in bone. Citric, malic, aconitic and succinic acids are co-precipitated *in vitro* with bone salts from inorganic salt solutions. The amounts of acids in the supernatant solution required for the co-precipitation of the amounts of acids present in bone are within the ranges of values reported for these acids for various tissues. When finely divided bone is incubated with carboxyl-labelled acetate, radioactivity is incorporated into the organic acids. The specific activity of these acids varies inversely with the extent to which the acids are co-precipitated with bone salt.

Melanin.

H. KAMIN *et alii* (*J. Biol. Chem.*, April, 1957) have shown that 2,4-dinitrophenol, mononitrophenols, DOPA, homogentisic acid and various polyphenols, quinones, amino-phenols and phenylenediamines markedly increase the uptake

of tyrosine- C^{14} by proteins of rat-liver homogenate with formation of a melanin-like substance. This stimulation was independent of enzymatic activity (hydroquinone, quinone, catechol, p-aminophenol), partially dependent on it (homogentisic acid, naphthoquinone, menadione bisulphite) or completely dependent on it (dinitrophenol, nitrophenols, phenol, phenylenediamines). In the absence of additions, 30% of tyrosine counts associated with protein was recovered as tyrosine. It is suggested that the enzymatic steps involved entail conversion of dinitrophenol, nitro and quinonoid compounds to quinones or semi-quinones or both, with subsequent copolymerization with tyrosine.

Vitamin A.

G. WOLF *et alii* (*J. Biol. Chem.*, April, 1957) have attempted to localize the function of vitamin A in a specific area in metabolism by determining the effect of vitamin A deficiency on the ability of the intact rat to incorporate labelled metabolic intermediates into a number of metabolic products. Radioactivity incorporation was compared in the severely deficient and the pair-fed animals. It was found that vitamin A deficiency had no appreciable effect on the incorporation of acetate- C^{14} into C^{14}O_2 , liver protein, aspartic acid and alanine, indicating no disturbance in the tricarboxylic acid cycle or in the reactions connecting it to glycolysis. Somewhat more radioactivity from acetate- C^{14} was incorporated into cholesterol and fatty acids in the vitamin A-deficient animal than in the pair-fed control, demonstrating the lack of involvement of vitamin A in cholesterol and fatty-acid biosynthesis. The extent of incorporation of acetate- C^{14} , lactate- C^{14} and glycerol C^{14} into liver glycogen was drastically reduced in vitamin A deficiency. The level of liver glycogen in the deficient animals was essentially zero, compared with a relatively high level in pair-fed controls. Glucose- C^{14} , as well as non-radioactive glucose, was deposited into liver glycogen to the same extent in the vitamin A-deficient and the pair-fed animals. These results can be interpreted to indicate that vitamin A is involved, directly or indirectly, in the reversal of glycolysis between the triose and the glucose stage.

PATHOLOGY.

Development of Fetal Pulmonary Arterioles.

R. M. O'NEAL, R. C. ARLVIN, W. C. BAUER AND W. A. THOMAS (*Arch. Path.*, April, 1957) have examined the lungs of 62 still-born and new-born infants to determine the amount of smooth muscle in the walls of pulmonary arterioles. The amount of muscle gradually increases during the latter half of intrauterine life. The relative lack of arteriolar muscle in premature infants may predispose these children to pulmonary disturbances resulting in respiratory failure, and may play some part in the condition referred to as "hyaline membrane disease".

Brush Up Your Medicine.

THE MANAGEMENT OF RINGWORM OF THE SCALP.

RINGWORM of the scalp is an infection of the hair shafts by a fungus resulting in baldness of the affected areas. The condition is common in children and rarely seen in adults.

The fungi responsible belong to *Microsporon* and *Trichophyton* groups. The *Microsporon* group possesses the peculiarity of making the infected hairs fluoresce under the Wood's light, a characteristic of great value, not only in the diagnosis, but in the assessment of progress and cure of this type of infection. In the *Trichophyton* group the infected hairs give off little, if any, fluorescence.

Diagnosis.

Diagnosis of the condition depends on the recognition of four main clinical types:

1. In the most common form, one or more small bald patches appear on the scalp, faintly pink in colour and covered with a greyish scale. Many broken hair stumps may be seen over the surface of the patch.
2. In the condition known as kerion, the fungus stimulates an inflammatory reaction, causing a large boggy swelling in the affected part often mistaken for a pyogenic abscess.
3. In the so-called "black dot ringworm", the scalp shows one or more bald patches, free from scale, where numerous small black dots are to be seen due to hair stumps broken off just below the mouth of the hair follicles. The infecting fungus is usually a *Trichophyton*.
4. Favus is characterized by yellow or sulphur-coloured honeycomb crusts around coarse scattered hair fibres found on a scarred and atrophic scalp. The condition, unless checked in its early stages, leads to a varying degree of permanent diffuse baldness. It is due to infection by the *Achorion schoenleinii*, one of the *Trichophyton* group.

In addition to the clinical appearances, diagnosis is confirmed by microscopic examination of the hair stumps for spores and mycelium, the identification of the type of fungus by culture, and, in the case of *Microsporon* infections, the use of the Wood's light.

Differential Diagnosis.

The following common conditions must be differentiated:

1. *Alopecia areata*. In this condition the patches are smooth, shiny and devoid of hair, or if hair stumps are present, they are of the so-called "exclamation type". These stumps show no fungus on microscopic examination.
2. Impetigo of the scalp. This is frequently confused with ringworm infection. However, the absence of spores or mycelium on microscopic examination with matting rather than loss of the hair should make the diagnosis easy.
3. *Pityriasis capitis* or dandruff. Here the hair growth is normal, and the scales are spread diffusely over the scalp.
4. *Psoriasis*. This commonly affects the scalp with coarse scaling, but there is no loss of hair. Further evidence of the disease is often to be found on other parts of the body. No microscopic findings of fungus are present.
5. *Trichotillomania*. This is a neurosis in which there is an abnormal desire to pull out or break off the hair. In children this may be associated with thumb-sucking and similar habits. In some adults a psychosis may be present.

Treatment.

Cure of ringworm of the scalp takes place only after the infected hairs have been shed, and therefore the object of treatment is to encourage the fall of hair and to prevent reinfection of fresh areas.

The natural shedding of the hair appears to vary inversely with the severity of the infection, mild cases taking up to twelve or more months, whereas ringworm with pustular reaction may undergo cure in a few weeks. The process can be hastened by frequent washing of the scalp and by the tractive effect of a greasy fungicidal ointment.

Artificial epilation can be induced either by the superficial application of X rays to the scalp or by the administration of thallium acetate by mouth.

It is well to realize that the infection is always more widespread than would first appear, and an attempt to treat

a single patch with ointment, paint or X rays will usually result in failure.

The method of treatment favoured will depend on the facilities available, on the age of the child and especially on the type of fungus present.

Infections due to the *Microsporon audouinii* and the *Trichophyton* group, both rare in Australia, are, as a general rule, resistant to topical remedies. Therefore identification of the organism is of great importance, as local therapy will prove a waste of time. On the other hand, the animal group of *Microsporon canis (lanosum)*, the common type of infection, will respond to local treatment with various fungicidal remedies in one to twelve months.

If local treatment with ointment is adopted the following routine is recommended.

All the hair is shaved at least once a week. The head is washed morning and night with warm water and soap, after which a suitable fungicidal ointment is rubbed gently all over the scalp. The ointment used is Whitfield's ointment, which has proved effective and inexpensive and does not irritate the skin. It is most unlikely that the ingredients of any application make direct contact with the infected hair roots, but they do prevent reinfection of fresh areas by the hair stumps when these are thrown out in the process of natural epilation. The importance of thoroughly washing the scalp twice daily with warm water and soap is stressed, as this helps to remove the loosened stumps. The head is kept covered with a linen cap at all times to avoid contamination of furniture and infection of other children or domestic animals.

Every three to four weeks the scalp is examined under the Wood's light until no fluorescence is seen, when the hair is allowed to grow. The anointment and washing routine is continued for a further four weeks, and at the end of this period, if the scalp is still negative to the Wood's light, the condition is considered cured.

For supervision of progress and determination of cure the Wood's light is of great value in *Microsporon* infections, as many patients may appear clinically cured and show normal hair growth on the affected parts but still have fluorescing hairs. On the other hand, some children may have bald, scaly, erythematous patches which appear to be heavily infected, but when examined by the Wood's light prove to be free from infection.

An investigation was carried out at the Royal Alexandra Hospital for Children of 120 children suffering from ringworm of the scalp due to *Microsporon lanosum* and treated by the above routine. It was found that four out of five were cured within four months.

X-ray therapy is indicated in children over six years of age when absence from school may retard the child's education, and is advisable in all *Trichophyton* infections and those due to *Microsporon audouinii*, which rarely respond to local treatment.

The modern treatment of X-ray epilation is to shave the scalp and, after marking four carefully measured points, to deliver a dose of 350r to each area, the radiation having an approximate half-value layer of one millimetre of aluminium. The fall of hair commences about three weeks later and is usually complete within seven days. The defluvium may be assisted by applying lengths of "Elastoplast" to the scalp and withdrawing them against the lie of the hair.

After the X-ray therapy the hair is washed morning and night with warm water and soap. After the hair has fallen, half-strength Whitfield's ointment is rubbed into the scalp until all signs of infection have disappeared. Regrowth begins in four to six weeks, but may occasionally be delayed for a longer period. Provided the technique is carried out with care there is no risk of permanent damage to the hair. However, scarring may occur in those patients who have had deep suppurative lesions, as the result of the suppuration; or in those with infections due to the *Achorion schoenleinii*, which itself tends to produce scarring and permanent alopecia.

In children under five years of age who are considered unsuitable for local therapy and who cannot be persuaded to remain sufficiently still to carry out the X-ray epilation technique, thallium acetate is sometimes given to produce the defluvium. The dose recommended is 3.5 milligrammes per kilogram of body weight, the hair falling fourteen days later as the result of a degree of poisoning produced by the drug. Through errors of dosage or as the result of some unrecognized pathological defect, deaths have occurred with this treatment. If possible, it should be avoided in a comparatively harmless condition such as ringworm of the scalp.

In conclusion three points are stressed:

1. Adequate pathological examination is necessary to determine the type of fungus, as the choice of therapy depends on this knowledge.

2. The Wood's light is indispensable in diagnosis, supervision of progress and determination of cure in Microsporon infections.

3. Finally, whatever treatment is adopted, it must embrace the whole scalp and be carried out as a rigid routine. Haphazard methods inevitably lead to failure.

HENRY SHARP, M.B., B.S., D.D.M.

Sydney.

British Medical Association.

MEETING OF THE FEDERAL COUNCIL.

A MEETING of the Federal Council of the British Medical Association in Australia was held at Newland House, 80 Brougham Place, North Adelaide, from August 30 to September 2, 1957. Dr. H. C. COLVILLE, the President, in the chair.

REPRESENTATIVES.

The following representatives of the Branches were present:

New South Wales: Dr. W. F. Simmons, Dr. A. J. Murray, Dr. R. H. Macdonald, Dr. E. F. Thomson.

Queensland: Dr. A. E. Lee, Dr. J. G. Wagner.

South Australia: Dr. L. R. Mallen, Dr. C. O. F. Rieger.

Western Australia: Dr. C. W. Anderson, Dr. D. M. Clement.

Victoria: Dr. H. C. Colville, Dr. R. Southby, Dr. J. G. Johnson.

Tasmania: Dr. L. N. Gollan, Dr. K. M. Kelly (proxy for Dr. J. B. G. Muir).

DEATH OF DR. T. A. PRICE.

The General Secretary referred to the death of Dr. T. A. Price, which had occurred on May 1, 1957, and mentioned his services to the medical profession in Australia, and especially the fact that he had been a member of the Federal Council from 1935 to 1945. The members stood as a mark of respect to the memory of Dr. Price.

FINANCE.

In presenting the financial statement, Dr. W. F. Simmons, the Honorary Treasurer, referred to the contributions of the Branches. He said that the capitation rate for the current year had been paid in full by most of the Branches and the finances of the Federal Council were in a satisfactory condition. He also presented an account of the estimated expenditure for 1958, and referred to the expenses likely to be associated with the meeting of the Council of the World Medical Association to be held in Australia in 1959. After discussion the Federal Council resolved that the contribution of the Branches to the expenses of the Federal Council for the year 1958 be at the rate of twenty-five shillings for each member on the membership list as at January 1, 1958.

Dr. Simmons then presented the financial statement for the Organization Fund for the period ended August 30, 1957. As there had been no expenditure since the previous statement and some interest had been added, the account now had a credit balance of £1565.

The financial statement for the Federal Independence Fund showed an increase, from the addition of interest, to £22,909. There had been no expenditure. The Federal Council resolved that of the amount not invested the sum of £1000 from this fund should be invested in Commonwealth Government bonds, that the balance should be placed in the Commercial Banking Company of Sydney Savings Bank and that the current account in the Commercial Banking Company of Sydney Limited be closed.

Dr. Simmons also presented the statement on the Entertainment Fund, which showed a credit balance of £269.

Accountant.

The General Secretary reported that Mr. W. Thomas, accountant to the New South Wales Branch, had been appointed accountant to the Federal Council, but had unfortunately been obliged to resign. By arrangement with the Branch, Mr. J. F. Walker had been appointed in his place.

DR. MERVYN ARCHDALL.

The President referred to the service that Dr. Mervyn Archdall had done for the medical profession in Australia during his long period as Editor of THE MEDICAL JOURNAL OF AUSTRALIA, and said that he was sure everyone would agree that any recognition of his services would warrant the best that it was in the power of the Federal Council to bestow. The highest honour that it could offer was that of the Gold Medal of the Association in Australia, an honour only rarely awarded, and then for the highest possible qualifications. He was sure that Dr. Archdall had more than fulfilled the requirements, and he therefore proposed that the Federal Council should express in this way its appreciation of the great services of Dr. Archdall to the British Medical Association in Australia. This was supported by Dr. Angus Murray, Dr. W. F. Simmons and the General Secretary, and carried unanimously.

SECRETARIAT.

In response to a letter from the New South Wales Branch, the Federal Council discussed and made suitable adjustments to the salary of the General Secretary and also decided that Miss H. Cameron's title in relation to the Federal Council should be "Executive Assistant".

HENRY SIMPSON NEWLAND PRIZE IN SURGERY.

Dr. W. F. Simmons presented the Financial Statement for the Henry Simpson Newland Prize Fund in Surgery for the period ended August 30, 1957. This showed a credit balance of £1103. Dr. Simmons pointed out that there was adequate money for a prize if a successful entry was submitted. The General Secretary referred to the fact that the essays for the prize must be delivered by November 23, 1957, and that he had called the attention of the Branches to this fact, as so far no essay had been submitted. The subject for the essay was "Factors Influencing Prognosis in Acute Intestinal Obstruction". It was suggested that members should do all that they could to encourage the submission of suitable entries.

MEDICAL OFFICERS' RELIEF FUND (FEDERAL).

Dr. W. F. Simmons presented the report of the Medical Officers' Relief Fund (Federal) on behalf of the Trustees. This showed that amounts had been paid to two beneficiaries, but that otherwise there had been no calls on the fund, which had total assets of £7236. After discussion it was decided that the Trustees of the Fund be requested to obtain legal advice on the winding up of the fund, and that they report to the next meeting of the Council.

FEDERAL MEDICAL WAR RELIEF FUND.

Dr. Simmons presented a report on the Federal Medical War Relief Fund on behalf of the Trustees, and pointed out that recently it had been possible through the fund to provide useful help on the sudden death of a doctor to his widow and two children. Ten beneficiaries had obtained help during the period under review, and there were other possible beneficiaries in sight. The excess of disbursements over income for the half-year had been £225, but the total assets of the fund amounted to £17,538.

HONOURS.

The General Secretary reported that messages of congratulation had been forwarded to the following members, who had received honours in the Queen's Birthday List: Major-General Sir Frank Kingsley Norris, K.B.E., Sir Arthur Amies, Dr. Benjamin T. Edye, C.B.E., Dr. Archibald S. Anderson, C.B.E., Dr. Thomas J. Biggs, O.B.E.

INQUIRIES FROM OVERSEAS.

The General Secretary referred to extensive correspondence in which he had received inquiries from practitioners and others overseas in relation to practice in Australia. He had sent suitable replies in all cases.

THE CENTENARY OF QUEENSLAND, 1959.

The General Secretary reported that he had received a letter from the Queensland Branch enclosing a copy of a letter from the Premier of Queensland, inviting organizations to hold interstate conferences in Queensland during the Centenary Celebrations in 1959. It was decided that the Federal Council should hold its second meeting of the year in 1959 in Queensland, about September of that year.

AUSTRALIAN NATIONAL COMMITTEE ON ILLUMINATION.

The General Secretary reported that after discussion with the Ophthalmological Society of Australia (British Medical Association) Dr. J. Davis had been nominated as the repre-

representative of the Federal Council on the Australian National Committee on Illumination, in place of Dr. N. M. Macindoe.

MAILING OF SAMPLES OF DRUGS.

The General Secretary referred to the fact that at the meeting of the Council in February, 1957, it had been decided to support the representations of the Pharmaceutical Association of Australia in relation to the indiscriminate mailing of samples of potentially dangerous drugs. The views of the Federal Council had been sent to the Director-General of Posts and Telegraphs, and in a reply it had been stated that the regulations were being reviewed, as the Department was impressed with the importance of the problem.

BIENNIAL CONFERENCE OF THE NEW ZEALAND BRANCH.

The Federal Council received with appreciation a report by Dr. A. R. Southwood, the Director-General of Public Health, South Australia, on the Biennial Conference of the New Zealand Branch, which he had attended at Wellington in February, 1957.

SURVEY OF NURSING RESOURCES AND EDUCATION.

The General Secretary reported that he had received a letter from the National Florence Nightingale Committee of Australia requesting the views of the Association in relation to a survey which the committee was conducting on nursing resources and education in community needs in nursing. The question had been referred to the Branches, and the Queensland and South Australian Branches had submitted their views in full. It was decided to send copies of the reports of these two Branches to the National Florence Nightingale Committee.

NATIONAL MARRIAGE GUIDANCE COUNCIL OF AUSTRALIA.

The General Secretary reported that he had received the minutes of the annual general meeting for 1956 of the National Marriage Guidance Council of Australia, and a copy of the report of the Council.

AUSTRALASIAN MEDICAL CONGRESS (BRITISH MEDICAL ASSOCIATION).

Tenth Session.

The minutes were received of the meetings of the Executive Committee of the Tenth Session of the Australasian Medical Congress (British Medical Association), to be held in Hobart from March 1 to 7, 1958.

The Federal Council discussed various aspects of the financial requirements for the Tenth Session. It was appreciated that the resources of the Tasmanian Branch were limited, and that the funds of Congress needed to be subsidized heavily from the accumulated funds from previous Congresses. Detailed recommendations were made to the Executive Committee in relation to a number of the major social functions.

Patron of Congress.

It was reported that His Excellency the Governor-General of Australia, Field Marshal Sir William Slim, had accepted the invitation to be the Patron of the Tenth Session. However, it was not yet certain whether he would be available to take the chair at the Inaugural Meeting.

Third Henry Simpson Newland Oration.

The General Secretary reported that the Right Honourable the Prime Minister of Australia had accepted the invitation to deliver the third Henry Simpson Newland Oration. It was decided that the Federal Council should entertain the Prime Minister to dinner before the oration.

Honorary Members.

The Federal Council approved a list of names of persons submitted by the Executive Committee for appointment as honorary members of Congress.

Presentation of Gavel to the University of Tasmania.

The General Secretary reported that Sir Henry Simpson Newland had suggested that the Federal Council should present a gavel to the University of Tasmania in recognition of the hospitality the University would tender to the Federal Council during the Tenth Session of Congress. It was decided to act on this suggestion.

Papers Read to Section of History of Medicine.

The General Secretary reported that a letter had been received from Dr. R. J. Connolly, inquiring if there was any objection to copies of papers read at meetings of

the Section of History of Medicine at the Congress being given to the Victorian Museum of Medical History for its archives section. It was agreed that there was no objection, so long as no papers were published without the sanction of the Federal Council.

Eleventh Session.

Discussion took place on the possible date and place of the holding of the Eleventh Session of Congress. It was pointed out that the annual meeting of the Parent Body of the British Medical Association was to be held in New Zealand in 1961, in conjunction with the meeting of the New Zealand Branch, and it was expected that all possible support would be given to this meeting from Australia. After further discussion it was decided that the Australasian Medical Congress (British Medical Association), Eleventh Session, would be held in Adelaide in 1962.

AUSTRALASIAN MEDICAL PUBLISHING COMPANY LIMITED.

Editor, "The Medical Journal of Australia".

The General Secretary reported to the Federal Council that Dr. Mervyn Archdall would complete his period of six months' long service leave and would retire from the editorship of THE MEDICAL JOURNAL OF AUSTRALIA on August 31, 1957. He further reported that at their meeting on August 29 the Directors had appointed Dr. R. R. Winton to be Editor of THE MEDICAL JOURNAL OF AUSTRALIA in succession to Dr. Archdall. It was resolved that the congratulations of the Federal Council be extended to Dr. Winton on his appointment.

Ordinary General Meeting.

The General Secretary reported that he had received notice that the Forty-Fourth Ordinary General Meeting of the Australasian Medical Publishing Company Limited would be held at 3 p.m. on Wednesday, September 11, 1957, at The Printing House, Seamer Street, Glebe, New South Wales.

"Family Doctor."

The General Secretary referred to the previous correspondence that had been carried on with the Australasian Medical Publishing Company Limited in relation to the idea of publishing in Australia a popular health journal of the type of *Family Doctor*, and pointed out that the Federal Council at its previous meeting had stated that it did not approve of the production by the Company of a popular health journal at the present juncture. Subsequently, a letter had been received from the New South Wales Branch, containing a recommendation to the Federal Council that it investigate the possibility of such a publication. After further discussion it was decided to defer consideration of the matter until the next meeting of the Federal Council.

ORGANIZATION OF THE PROFESSION.

Medical Guild.

The General Secretary referred to a letter which had been received from the Queensland Branch, in which it was stated that a member of the Branch had brought forward the question of the desirability of the formation in Australia of a medical guild to carry out those activities which were outside the memorandum of association of the Branch and of the Federal Council. However, at a subsequent meeting the Council of the Branch had expressed the view that the formation of a medical guild was not necessary or desirable. The Federal Council decided to take no action in the matter.

Procedure in Medico-Political Matters.

The President reported on a conference that had been held between The Royal Australasian College of Physicians, the Royal Australasian College of Surgeons and the Federal Council of the British Medical Association in Australia in Sydney in February, 1957. At that conference it had been agreed that approach to the Government on questions of medico-political importance should, as a general practice, be made through the Federal Council of the British Medical Association, but The Royal Australasian College of Physicians and the Royal Australasian College of Surgeons reserved the right to approach the Minister for Health or any appropriate persons in any particular instance.

After further discussion and consideration of a letter from the Queensland Branch it was resolved that the Council should once again make strenuous attempts to obtain from the various Colleges and Faculties within the profession acceptance of the principle that they should confine their activities to scientific and domestic matters, and that all negotiations with outside bodies should be left in the hands

of the British Medical Association, on condition that, where a matter in question was of sectional interest, that Section, College or Faculty should have representation on the British Medical Association's negotiating body. It was decided that an approach in those terms should be made to the Colleges and similar bodies in Australia other than the two Royal Colleges, with which a conference had already been held.

In a further resolution, the Federal Council expressed its appreciation of the agreement by the Royal Australasian College of Surgeons and The Royal Australasian College of Physicians that approaches to the Government on medico-political matters should be made through the Federal Council of the British Medical Association in Australia.

MEDICAL PLANNING.

National Health Service.

Commonwealth Health Insurance Council.

The General Secretary read a letter from the Director-General of Health, Dr. A. J. Metcalfe, in which it was advised that the Minister had approved the establishment under Section 136 of the *National Health Act* of the Commonwealth Health Insurance Council. This would supersede the Federal Advisory Council. The functions of the Council would be to advise the Minister on matters relating to the Medical Benefits and Additional Hospital Benefits Schemes, and to recommend means by which improvements in methods and standards might be effected. The Council would consist of (i) the Director-General of Health as chairman, (ii) a medical practitioner nominated by the Federal Council of the British Medical Association, (iii) six representatives of the State Associations of Registered Organizations, and (iv) three other persons nominated by the Minister. The members of the Council would be appointed by the Minister, and would hold office during his pleasure. Dr. Metcalfe asked the Council to nominate a representative for appointment to the new Council and to submit for consideration matters for inclusion in the agenda for the first meeting.

After discussion, it was decided to inform the Minister that the Federal Council failed to see the necessity for the supersession of the Federal Advisory Committee, in view of the fact that the necessary machinery for advice was in existence in that committee. The Minister was to be further informed that, on the information before it, the Federal Council was of the opinion that the medical representation suggested for the proposed Commonwealth Health Insurance Council was inadequate, and that it should consist of one representative from each of the six State Branches of the British Medical Association. The Federal Council then resolved that in the event of its representations not being acceptable to the Minister for Health, it should nominate Dr. A. E. Lee as its representative on the proposed Commonwealth Health Insurance Council.

Medical Benefits: Physiotherapy Services.

The General Secretary referred to a letter sent by the Australian Physiotherapy Association to the Victorian Branch, referring to the exclusion of physiotherapy from the provisions of the Medical Benefits Scheme, and suggesting the holding of a conference on the subject. The Council decided to inform the Australian Physiotherapy Association that as physiotherapy was not a medical service within the definition of the *National Health Act*, unless carried out by a medical practitioner, no good purpose would be served by holding a conference as suggested.

Health Scheme Proposed by the Australian Labour Party.

Reference was made to a pamphlet entitled "The Health of the Nation", which was the report of a joint committee of the New South Wales Branch of the Australian Labour Party and the Labour Council, in which the opinion was expressed that there should be introduced into Australia by the Commonwealth Government a complete health service, free to all and based on the British National Health Service. After discussion, it was decided to recommend to the Branches that members be informed of the expressed policy of the Australian Labour Party on a national health service and of its implications, pointing out that it was contrary to the policy of the Federal Council.

Defects of Present Health Scheme.

The General Secretary referred to a letter from the Victorian Branch, in which it was pointed out that the Branch Council had been giving consideration to the National Health Service from the point of view both of the public and of the profession. The Branch Council considered that the Association should do all in its power to improve and extend the present scheme. The Council had

therefore enumerated what it considered to be the obvious defects of the present service, and suggested ways and means whereby it considered that those defects could be remedied. The Council considered the obvious defects to be: (i) the inadequacy of benefits, both medical and hospital; (ii) the exclusion from benefit of preexisting illness; (iii) exclusions from benefit in relation to chronic conditions; (iv) the failure of the scheme to provide for patients suffering catastrophic illness. A series of resolutions of the Victorian Branch Council, designed to remedy the defects listed, were forwarded with the suggestion that they be adopted as the policy of the Federal Council.

The General Secretary outlined the comments of the other State Branches on the Victorian proposals, and a discussion took place. The President pointed out that the policy of the Australian Labour Party had been made clear, and that if the present National Health Service was to be safeguarded the Government would have to spend more money. The Australian Labour Party policy envisaged the spending of a much larger sum than that at present being expended. The discussion and the replies from the individual Branches made it clear that there was general agreement about the defects listed by the Victorian Branch. The Federal Council decided to adopt the following resolutions:

(i) That the Federal Council is of the opinion that the present National Health Service could best be made more attractive to the public by a substantial increase in the combined benefits with the object of giving an assured cover of at least 75% of the average fees currently charged.

(ii) That the Association is prepared to draw up a scale of average fees currently charged for the commoner services for submission to the Government as a basis for a revised schedule of benefits, the schedule to be reviewed biennially.

(iii) That the Federal Council is of the opinion that Medical Benefit organizations should be subsidized by the Commonwealth Government so as to enable them to carry persons with chronic illnesses who should receive full benefits at standard rates of contribution.

(iv) That the Federal Council is of the opinion that the Commonwealth Government should encourage the maintenance of insurance policies and discuss means whereby the period of exclusion for preexisting illness could be shortened.

(v) That the Federal Council is of the opinion that there is need for a substantial increase in the amount of hospital benefit paid by the Commonwealth Government.

(vi) That representations be made to the Minister for Health that any Fund which wished to provide higher hospital tables should not be prevented from doing so provided that adequate safeguards are taken to maintain the solvency of the Fund.

(vii) That the Commonwealth Government be urged to give continuing publicity to the existing National Health Service.

(viii) That the Federal Council approach the Minister for Health requesting him to arrange for a deputation of the Federal Council to meet the Prime Minister to discuss the future of the National Health Service.

(ix) That the deputation consist of the President, Dr. H. C. Colville, Vice-President, Dr. A. J. Murray, Dr. A. E. Lee, and the General Secretary, Dr. J. G. Hunter.

Pensioner Medical Service.

The General Secretary referred to a resolution of the Federal Council at its meeting in February, 1957, in which it had reiterated its request to the Minister for Health for an increase in the rates of payment under the Pensioner Medical Service from 10s. and 12s. 6d. to 12s. 6d. and 15s., and had decided that a further letter should be sent to the Minister for Health signed by the President. Later in the meeting it had approved a letter drafted by the President. The Minister had subsequently replied and stated that the claims advanced by the Council had been fully examined, but for the reasons indicated previously, the Government's view was that an increase in the rates was not justified. The Federal Council then resolved that further representations be made to the Commonwealth Government in an attempt to obtain an increase in the fees payable to medical practitioners rendering service under the Pensioner Medical Service. It also made a recommendation to the Branches that they advise their members of the history of the Pensioner Medical Service, an account of which had been prepared by the General Secretary.

A letter was received from the New South Wales Branch, in which it was pointed out that when a medical practitioner indicated to the Commonwealth Department of Health that he desired to provide medical services under the Pensioner

Medical Service, he was forwarded a letter, P.M.S. 11, which set out in general the conditions applicable to the scheme. It referred to the authority given to the Director-General of Health on behalf of the Commonwealth under the *National Health Act* to enter into an agreement with the medical practitioner in accordance with the common form of Pensioner Medical Service Agreement which had been arranged. It asked that if the practitioner wished to provide the service under the terms and conditions set out in the letter he should complete the attached form and return it. The New South Wales Branch Council, having regard to the fact that there was now no agreement between the Commonwealth Government and the Federal Council, had decided to refer the matter to the Federal Council for its consideration. The matter was noted.

The General Secretary reported the receipt of further lists of medical practitioners in New South Wales and Queensland who were willing to provide medical services to pensioners.

General Pharmaceutical Benefits.

The General Secretary referred to a number of letters received from Branches, Special Groups and Medical Societies, requesting alterations and additions to the list of general pharmaceutical benefits. Those matters had all been suitably dealt with.

A letter was received from the New South Wales Branch in which it was requested that the Federal Council should again take up with the Minister for Health the desirability of reducing the frequency with which amendments were made to the Pharmaceutical Benefits Schedule. It was pointed out in discussion that for a while, in accordance with a previous request from the Federal Council, the frequency of distribution of amendments had lessened, but it was again increasing. The Federal Council resolved to make a further approach to the Minister in the terms of the New South Wales Branch request.

Medical Benefits.

Anomalies in the Schedule of Benefits.—The General Secretary referred to the fact that the Federal Council at its meeting in February had adopted, with amendments, a combined report of the committees of the Federal Council and of the New South Wales Branch on anomalies in the schedule of benefits. He said that copies of the combined report had subsequently been forwarded to the Minister for Health, the State Branches and the members of the Federal Council. Dr. A. E. Lee said that he understood that the *National Health Act* was coming up to Parliament in the near future, and that it was assumed that the schedule of benefits would be revised.

The General Secretary referred to a letter in which he had mentioned the previous resolution of the Federal Council to approach the Federal Government and the medical benefits organizations with a view to obtaining an increase in the medical benefits payable and especially to securing an easing of the restrictions which applied to the upper limit of fund benefits. In reply to a letter from him the Blue Cross Association of Australia had advised that the member organizations of their Association were currently undertaking an actuarial survey of benefit experience and membership, but that it was unlikely that enough information would be at hand before the Federal Council meeting to permit an appraisal of benefit tables. The Blue Cross Association had gone on to say that when the member organizations were in a position to consider higher medical benefit tables, they would for administrative reasons endeavour to continue the existing policy of matching the Commonwealth benefits by a consistent percentage throughout. A consistent matching was vital to any plan of mechanization. Linked with that was the desirable alternative of having the Commonwealth Government correct anomalies in the schedules and increase the benefits for specific services where necessary. That would result in a pro-rata increase in organization benefits. It was pointed out that it would assist the Blue Cross organizations in their planning to know whether the British Medical Association would consider seeking a formula, perhaps an agreement with the Commonwealth to stabilize medical fees for a determined period. It was also pointed out that medical benefits organizations must obtain the prior approval of the Commonwealth Health Department to any alteration to rules or by-laws, and on past experience such applications involving increases in benefits had small prospect of succeeding. After discussion, the Federal Council resolved to inform the Blue Cross that the Federal Council would be unwilling to enter into an agreement with the Commonwealth Government to fix medical fees for a determined

period, but as in the past would do all in its power to ensure that individual members would not increase their fees because of any increase in benefits which might be decided upon.

At its meeting in February, 1957, the Federal Council resolved to make representations to the Minister for Health to the effect that when an ocular service was rendered and refraction carried out at the same time, and no glasses were prescribed, benefits should be payable. The General Secretary said that he had subsequently received a letter from the Victorian Branch, forwarding a copy of a letter from the Victorian Section of the Ophthalmological Society of Australia (British Medical Association), expressing opposition to the Federal Council's decision. The question was referred to the State Branches, and after hearing the replies of the Branches and further discussion, the Federal Council let the matter stand.

A letter was read from the Australian Society of Anaesthetists, in which attention was drawn to anomalies existing in the Commonwealth Medical Benefits Scheme regarding payment for anaesthetic services. It was stated that at the time of the introduction of the first schedule under the *Medical Benefits Act*, the Australian Society of Anaesthetists had pointed out that the benefits recoverable by the patient were unrelated to normal and proper anaesthetic fees for services rendered. The Society was of the opinion that the matter had not been corrected by the amended schedule, and the return to the patient was still unrelated to the proper charges for anaesthetic services rendered. The Society also drew attention to the fact that a number of new procedures had been introduced related to anaesthesia and undertaken by specialist anaesthetists. They included hypothermia and assisted circulation. They occupied much time and required special skill. The fee was necessarily high, and closely approximated that of the surgeon, but at present the patient was entitled to a refund for the anaesthetic only. It was felt that special provision should be made to cover the situation, the suggestion being that a patient who underwent one of the procedures mentioned should receive the maximum surgical benefit for the special procedure in addition to the anaesthetic benefit. The Society offered to appoint representatives to assist the British Medical Association and the Minister of Health if any appropriate amendments to the schedule of anaesthetic services should be contemplated. The matter was referred to the Branches. The Queensland Branch considered that the occasional problem of high fees was better dealt with by complementary insurance outside the scheme. The New South Wales Branch recommended that the Federal Council hold a conference with the representatives of the Society of Anaesthetists. The South Australian Branch agreed that there were anomalies and considered that the attention of the Minister should be drawn to the matter. The Tasmanian Branch supported any contemplated action for amendments to the schedule. The Victorian and Western Australian Branches left the matter in the hands of their delegates. After discussion, the Federal Council decided that a conference should be held with the representatives of the Society of Anaesthetists for the purpose of discussing the anomalies.

A letter was received from the Western Australian Branch referring to post-operative visits paid by a paediatrician to an infant who had undergone operation for pyloric stenosis by a surgeon. Some difficulty had been experienced in obtaining payment of benefits in respect of the paediatrician's consultation fees. The Commonwealth Director of Health had advised the Director-General of Health that post-operative therapy instituted after an operation for pyloric stenosis should be completely divorced from all connexion with the term "post-operative" as it was used in the Medical Benefit Schedules. The Director-General confirmed this opinion. The Western Australian Branch Council recommended that it be suggested to the Minister for Health that where a medical practitioner (specialist or general practitioner) was treating an infant under the age of six months, and surgery by a specialist became necessary, then the post-operative visits of the referring doctor which might be necessary to advise on dietary regime, fluid balance etc., should attract Commonwealth benefits and not be considered as post-operative visits. The matter was referred to the other Branches, which had not agreed with the recommendation of the Western Australian Branch. The Federal Council supported the view expressed by the Commonwealth Director-General of Health to the effect that the amount of benefit payable as shown in the schedule was for the operation and after-care of that operation, and that other incidental treatment should attract separate Commonwealth benefits. The Federal Council considered that where medical treatment became necessary during the course of operative treatment, it should attract a benefit.

The Tasmanian Branch forwarded a copy of a letter from a member in regard to anomalies in the allowances made under the Medical Benefits Scheme for plastic and reconstructive procedures. The letter was received.

Cheques from Medical Benefits Fund.—The General Secretary read a letter from the New South Wales Branch in which the Branch Council recommended to the Federal Council that it should reiterate the undesirability of medical benefits funds remitting cheques for the amount of a contributor's benefit direct to the doctor, instead of to the contributor, and to take such action as the Federal Council deemed advisable. The letter further pointed out that in the case of some medical benefits funds the cheques apparently were made payable to the doctor, but were forwarded to the contributor, so that he might use them when finalizing his account with the doctor. In the case of other funds, the cheques were sent direct to the doctor, who often found that the contributor failed to pay the balance of the account due. In that way the provision under the *National Health Act* that the benefits payable should not exceed 90% of the doctor's account was being nullified. The letter was forwarded to the other Branches, all of which supported the New South Wales recommendation. The Federal Council resolved in terms of the New South Wales Branch recommendation.

Discussion of Doctors' Fees by Personnel of Medical Benefits Fund.—A letter from the Tasmanian Branch drew the attention of the Federal Council to alleged discussions between medical benefits fund personnel and patients regarding doctors' fees, and requested that the Federal Council make appropriate representations to the fund. The General Secretary said that he had taken the matter up with the Manager of the Medical Benefits Fund, who was looking into it.

Bulletin of Statistics.—Reference was made to a bulletin of statistics of medical and hospital benefits schemes which had been received from the Director-General of Health and made available to Branches and to members of the Federal Council.

M.B. Circular No. 26.—Reference was made to M.B. Circular No. 26, which had been received from the Director-General of Health and set out a series of determinations made by the Minister for Health under Section 15A of the *National Health Act* in regard to medical services not specified in the schedules to that Act. The information had been passed on to the Branches.

Medical Services Committees of Inquiry.

At its meeting in August, 1956, the Federal Council resolved to inform the Minister for Health of its approval of his request that information be furnished to Medical Boards where notice of action taken against a medical practitioner was published in the *Commonwealth of Australia Gazette*, provided that such information was forwarded only at the specific request of the Medical Boards. A letter was subsequently received from the Western Australian Branch, inquiring as to what action had been taken in the matter, and recommending that findings of Medical Services Committees of Inquiry be forwarded to Medical Boards where the Committees deemed it advisable. It was reported that no requests had been made to the Minister by the Boards for the findings, and the Boards stated that they had no information that the findings were available. After discussion, the Federal Council rejected the motion by one of the Western Australian delegates that the previous resolution of the Federal Council should be rescinded.

A letter was received from the Minister for Health, forwarding a proposal that the Federal Council should notify the medical profession of two resolutions adopted by a State Medical Services Committee of Inquiry. The first was that practitioners attending pensioner patients in institutions should exercise particular care to relate the frequency of their attendances to the medical needs of the patients, with due regard to any nursing attention that might be available in the home and the facilities available for repeat prescriptions. The second was that repeat prescriptions were sanctioned by the National Health (Pharmaceutical Benefits) Regulations, and any failure by practitioners to avail themselves of the facilities thus provided could be regarded as predisposing to unnecessary attendances. After discussion by the executive officers, a letter of reply had been drafted and sent to the Minister, over the signature of the President, in which reference was made to a previous letter on the subject, and attention was drawn to the desirability of payment at sessional rates when more than six patients were seen at the one time in an institution.

The General Secretary drew attention to notices in the *Commonwealth of Australia Gazette* of reprimands of three medical practitioners.

Vaccinations Against Poliomyelitis.

A letter was received from the Queensland Branch recommending that the Federal Council approach the Commonwealth Health Department to have Salk vaccine made available to general practitioners. The letter had been referred to the Branches. The New South Wales Branch Council was of the opinion that a request should be made to the Commonwealth Government to make available supplies of Salk vaccine for use in private practice when it became practicable to do so. The Tasmanian Branch Council supported the Queensland Branch. The Victorian Branch Council left the matter in the hands of its delegates. The South Australian and Western Australian Branch Councils did not support the Queensland Branch. The Federal Council resolved to approach the Commonwealth Health Department to have Salk vaccine made available to general practitioners where it became practicable to do so.

Committee on Australian Universities.

A letter was received from the Secretary of the Committee on Australian Universities, relating to the establishment of a committee to investigate the future organization of universities in Australia. The General Secretary said that the Branches had been invited to submit any recommendations that they wished on the subject, but it was not practicable for the Federal Council to make any submissions, because of the limited time available.

Interstate Transfer of Medical Registration.

A letter was received from the Western Australian Branch, in which it was stated that their Branch Council had been advised that at a meeting of State Ministers of Health held in Tasmania early in 1957 a suggestion had been put forward that medical registration should be transferable from State to State within Australia. The Branch Council desired to recommend that the Federal Council should support any such proposal. The General Secretary said that the question had been referred to the Branches, and the general response had been to the effect that it was either undesirable or impracticable, particularly because of the lack of uniformity in the standards of registration in the individual States. It was appreciated that if any uniformity was to be achieved, it would have to be initiated on the Federal level, and it was decided to discuss with the Commonwealth Minister for Health the principle of uniform registration of medical practitioners throughout the Commonwealth.

Proclamation of Dangerous Drugs.

A letter was read from the New South Wales Branch, in which reference was made to the Council's concern at the number of drugs which had been brought under Part 6 of the *Police Offences (Amendment) Act*—in other words, which had been declared dangerous drugs. The latest proclamation had included a number of drugs with very long chemical names, which were probably unknown in Australia, and the common names of which were obtained only with difficulty. The Branch Council felt that the proclaiming of such drugs was only causing confusion amongst the medical profession. Accordingly, it recommended to the Federal Council that it might take up this matter with the Commonwealth Government, as it would appear that the proclamation of such drugs as dangerous drugs resulted from the activities of the World Health Organization. The matter was referred to the Branches, which were in general agreement with the attitude of the New South Wales Branch, and the Federal Council decided to take up with the Commonwealth Government the matter of the proclamation of drugs coming within the definition of dangerous drugs, and to recommend that in future proclamations, in addition to the chemical name of any particular drug, the synonym and the trade name of each should also be included.

Standard Form for Specialist Reports for Life Assurance Offices.

A letter was received from the Western Australian Branch enclosing a copy of a standard report used by the Australian Mutual Provident Society in Western Australia when requesting reports from specialists, and recommending that the Federal Council discuss this form with the Life Offices Association, in relation to the adoption of a standard *pro forma*, to be used by all life offices throughout Australia when specialist reports were requested, and the adoption of a standard fee of £2 2s. for the completion of such reports. The matter was referred to the Branches, but there was considerable diversity in their opinions. After discussion the Federal Council decided to discuss with the Life Offices Association of Australia the following two matters: (a) the adoption of a standard form to be used by all life offices

throughout Australia when specialist reports were requested, and (b) the adoption of a standard fee of £3 3s. for the completion of such reports.

Prevention of Blindness.

A letter was received from the Western Australian Branch recommending that the Federal Council should reopen the question of the prevention of blindness with the National Health and Medical Research Council, and should ask if the Council could make available the necessary finance to enable the proposed surveys to be carried out. The General Secretary said that he had referred the matter to the Branches, pointing out in the accompanying letter that in 1938 the Interstate Blind Conference had submitted to the National Health and Medical Research Council proposals in regard to the prevention of blindness. The subject had been referred to the Federal Council, which was of the opinion that each State should carry out a survey on blindness, the results of which would be correlated in a comprehensive report on the disease in Australia. The National Health and Medical Research Council had endorsed that opinion, and had offered its full cooperation in any way practicable. The State Branches had been asked to organize surveys, but the point had been raised that in view of the magnitude of the problem in the larger States, the National Health and Medical Research Council should be asked to make grants towards the expenses of such surveys. The matter had been shelved with the outbreak of World War II. At its meeting in February, 1957, the Federal Council had considered and rejected a proposal from the Ophthalmological Society of Australia (British Medical Association) that blindness should be made compulsorily notifiable by legislation for the purpose of statistical surveys. However, the National Health and Medical Research Council had subsequently acted in the matter, and had recommended that blindness be made notifiable. It was understood that the individual States were preparing legislation for the purpose. After consideration of the question the Federal Council decided to reopen with the National Health and Medical Research Council the question of a survey on blindness in Australia, and to ask the Council if it could make available the necessary finance to enable the proposed survey to be carried out.

Hospital Administration.

At its meeting in February, 1957, the Federal Council passed a resolution supporting the idea of a course in hospital administration, but took steps to request that the conditions which would apply to medical practitioners doing the course at the New South Wales University of Technology be modified. The General Secretary read a letter from the New South Wales University of Technology, in which details were given of the proposed course, and in which it was pointed out that the present course was rather of a temporary nature. It was considered that any medical practitioners who wished to undergo training in this way would be best advised to undertake the course for a Master's degree, which would be carried on at some time in the future. Certain modifications were proposed—for example, in relation to the teaching of accountancy—which would make the course more convenient for medical practitioners.

PUBLIC RELATIONS.

A letter was received from the Western Australian Branch in which it was recommended that the Federal Council should again consider the appointment of a public relations officer. The question was referred to the Branches. The Queensland Branch urged the Federal Council to formulate and pursue a more intensive policy in regard to public relations, and to prepare a monthly pamphlet suitable for presentation to patients, copies of which might be obtained through the Australasian Medical Publishing Company Limited. It had also suggested that the services of the Gallup Poll Administration should be enlisted to obtain for the information of the Federal Council a poll of public opinion on certain important matters. The New South Wales Branch recommended that relations be carried out on a State basis as at present. The Victorian Branch considered that relations should be left in the hands of the Federal Secretariat at the present stage. The South Australian Branch considered that the appointment of a public relations officer by the Federal Council at some future date would be desirable, but the need for it did not exist at the present time. The Tasmanian Branch held a similar view.

The General Secretary, during the discussion, referred to the American view that individual practitioners were the most important public relations officers, and from that point of view were either good or bad public relations officers, depending on their attitude and behaviour. He also stressed the value of good public relations within the profession. Dr. Mallen referred to the importance of the individual

practitioner as a public relations officer, and pointed out that it was not the "bad boy" within the profession who created bad public relations, but the average doctor who failed to explain things to his patients and in other ways to create good relations.

After further discussion it was decided to take no further action at the present stage in relation to the appointment of a public relations officer by the Federal Council.

A letter was received through the Western Australian Branch from the Canberra Information Service, detailing services that they were able to offer in the provision of information on parliamentary and similar matters. The matter was referred to the Branches, the majority of which agreed that the offer of the Canberra Information Service should be accepted, and the Federal Council decided to subscribe to the service for one year.

THE COLLEGE OF GENERAL PRACTITIONERS.

The General Secretary referred to a letter received from the College of General Practitioners in relation to the surgical training of general practitioners, in which it was recommended that some form of diploma in surgery should be available, and recommending that the Federal Council sponsor a meeting of the Royal Australasian College of Surgeons, the Post-Graduate Federation in Medicine and the College of General Practitioners to discuss post-graduate surgical training for general practitioners. The Branches had in general approved the holding of the proposed conference, but were opposed to the institution of a general practitioner diploma or qualification in surgery. The Federal Council then resolved to sponsor such a conference as had been suggested, and left the arrangements for the conference in the hands of the President.

The General Secretary referred to a letter that he had received with reference to the incorporation of an Australian College of General Practitioners. The matter had been referred to the Branches, which offered no objection to the incorporation, and the Federal Council agreed to this.

MEDICAL ETHICS.

Anonymity in Broadcasting.

The General Secretary read a letter received by the New South Wales Branch from the President of the Australian Federation of Commercial Broadcasting Stations, in which a reference was made to the previous decision of the Federal Council, that doctors might appear on television under their own names, but that the present restriction relating to Press and radio was to continue. The letter pointed out that the decision appeared to be an extraordinary one, as a doctor who was both seen and heard on television could be identified, whereas anonymity must prevail for other media. It asked that the matter should be reconsidered. The Federal Council resolved that, provided permission had been obtained from a Branch Council and the script approved, no objection would be expressed to the name of the speaker being announced in regard to any public talk delivered on television, radio, or as a public lecture.

Consultation with Non-Medical Persons.

A discussion took place on the propriety of medical practitioners consulting with non-medical persons, such as biochemists, and it was resolved that the Federal Council should sponsor a meeting between the Federal Council and the Councils of the College of Radiologists and the College of Pathologists to consider the question.

COMPANY FORMATION BY MEDICAL PRACTITIONERS.

Correspondence was received from the South Australian and New South Wales Branches, relating to company formation by medical practitioners, particularly in the light of resolutions on the subject which had been passed at the meeting of the Federal Council in February, 1957. After discussion, it was resolved that those resolutions should be referred to the Council's legal advisers for opinion.

BRITISH MEDICAL ASSOCIATION.

Empire Medical Advisory Bureau.

The General Secretary read a letter in which notification was given of the change of title of the Empire Medical Advisory Bureau to the Commonwealth Medical Advisory Bureau, and of the title of the International Medical Visitors Bureau to the International Medical Advisory Bureau.

Professional Incomes Earned in Australia.

The General Secretary referred to a request which he had received from the London Office of the Association, desiring information on professional incomes of doctors and dentists

and comparable incomes earned by members of other professions. He was able to satisfy the request by forwarding a copy of the preliminary report on professional incomes in Victoria which had been recently issued by the University of Melbourne.

Transfer of Membership of the British Medical Association in Australia.

The General Secretary reported that as Medical Secretary of the New South Wales Branch he had received a letter from the Accountant, London Office, in reference to the collection of unpaid subscriptions from members who moved from one Branch to another before having paid their subscription for the year.

The problem, the Accountant said, arose more frequently in Australia than in other countries, and he would like to be advised of the procedure adopted in Australia regarding transfer of membership.

The General Secretary explained that no difficulty should be experienced in the matter of transfer of membership if the Branches would observe the following cardinal rules: (i) that membership of the Association ceased on December 31 by non-payment of subscription; (ii) that a member was *ipso facto* a member of the Branch in whose area he resided; (iii) that by mutual agreement between the Branches the annual subscription of a member was always payable to the Branch on the list of members of which the member's name appeared on January 1.

Fifth British Commonwealth Medical Conference.

A memorandum was received from the Honorary Secretary-Treasurer of the British Commonwealth Medical Conference, which explained the difficulties experienced in holding the British Commonwealth Medical Conference in 1958, when it was due, having been postponed from 1957. It was suggested that it might be preferable to hold the Fifth Conference in 1959, so that the delegates might have the opportunity of attending the annual meeting of the British Medical Association in that year, to be held in Edinburgh as a joint meeting of the British Medical Association and the Canadian Medical Association. The British Medical Association Council felt that it would be ungracious for it as the host of the Fifth Conference to decide to postpone the Conference again, and had referred the matter to the member associations to ascertain their wishes. The Federal Council resolved that the Secretary-Treasurer of the Conference be advised that the Federal Council was agreeable to the Fifth British Commonwealth Medical Conference being held in Edinburgh in 1959.

NATIONAL HEALTH AND MEDICAL RESEARCH COUNCIL.

A report was received of the Forty-Third Session of the National Health and Medical Research Council, held in May, 1957, prepared by the Federal Council's representative on the National Health and Medical Research Council, Dr. W. F. Simmons. The General Secretary said that a copy of the report had been sent to the Branches and to the members of the Federal Council. Dr. Simmons was thanked for his report.

A letter was received from Dr. C. E. Cook, of the Commonwealth Department of Health, in which he supplied details of resolutions included in a report of the Public Health Committee adopted by the National Health and Medical Research Council. The resolutions concerned the notification of blindness, the recommendation for which the committee had reaffirmed, and narcotic drug legislation relating to the notification of addiction and the reporting of prolonged therapy.

A letter was received from the Chairman of the National Health and Medical Research Council, advising that the term of the present nominee of the Federal Council, Dr. W. F. Simmons, would expire on December 31, 1957, and requesting nomination of a Federal Council representative for the three-year term commencing January 1, 1958. The Federal Council again nominated Dr. Simmons for the position.

COMMONWEALTH DEPARTMENT OF HEALTH.

Pethidine and Drug Addiction.

At its meeting in February, 1957, the Federal Council decided that a letter be forwarded to the members of the profession in reference to the matter of drug addiction. The drafting of the letter was left in the hands of the New South Wales members of the Federal Council Executive, the letter to be sent to the President for his approval and signature. The President reported that as pethidine tablets had been removed from the list of pharmaceutical benefits, he was of the opinion that the problem of addiction

associated with this drug would be resolved, and he had therefore decided not to send the letter. The President's action was approved.

INCOME TAX AND SOCIAL SERVICES CONTRIBUTION ASSESSMENT ACT.

The General Secretary reported that a letter had been received from the New South Wales Branch in which it was pointed out that under the *Income Tax and Social Services Contribution Assessment Act* the maximum amount allowed as a deduction for income tax purposes in respect of subscriptions to any one professional organization was £10 10s. The New South Wales Branch had recommended to the Federal Council that a request should be made to the Government to increase this amount. The matter was referred first to the Branches and then to the Commissioner of Taxation. In reply, the Commissioner had advised that inquiries made by his deputies in the various States had indicated that the present activities of the State Branches of the British Medical Association were such that, if the individual members carried out the same activities, the expenditure incurred by them on the activities would be allowed as income tax deductions. In those circumstances, the whole of the subscriptions paid by the members of the Association would be allowable in full as deductions under the provisions of Section 73(2)(b) of the *Income Tax and Social Services Contribution Assessment Act, 1936-1956*. This approval would continue in force unless there was a material alteration in the activities of the Association, in which case a further examination of the position would need to be made.

WORLD MEDICAL ASSOCIATION.

A report on the Twenty-Ninth Council Session of the World Medical Association held at Oslo in April, 1957, was received from Dr. L. R. Mallen. It was noted that Dr. Mallen had been appointed Vice-Chairman of the Council of the World Medical Association, and the Federal Council extended its congratulations to him. It also thanked him for his report.

The General Secretary referred to an invitation received from the World Medical Association to submit items of business for the Thirtieth Council Session, and the Eleventh General Assembly to be held at Istanbul, Turkey, at the end of September, 1957. The matter had been referred to the Branches. It was noted that the Australian delegates to the General Assembly would be Dr. L. R. Mallen and Dr. Naomi Wing.

The General Secretary advised that the World Medical Association had accepted the invitation of the Federal Council to hold the Thirty-Fifth Council Meeting of the World Medical Association in Sydney in April, 1959. It was mentioned that the meeting would entail considerable cost, but that it was necessary to look after the visiting members of the Council in a suitable fashion. The British Medical Association was under no official obligation with regard to the cost, but it was most desirable that the profession in Australia should do everything in its power to ensure the success of the meeting. As it was being held in Australia, the meeting would naturally be much more expensive than usual for the World Medical Association. The Federal Council decided that a letter of appeal for subscriptions towards the expenses of the meeting should be forwarded to members under the signature of the President. This would be in addition to the amount requested from members for the work of the Australian Supporting Committee.

Medical Education.

The General Secretary reported that as a result of correspondence relating to the Second World Conference on Medical Education, to be held in Chicago from August 30 to September 4, 1959, the name of Mr. V. M. Coppleson, F.R.C.S., F.R.A.C.S., had been submitted as a Vice-President. This was approved. The Federal Council also resolved to inform the Australian Post-Graduate Federation in Medicine that the Federal Council would make a donation towards the cost of the Conference.

Medical Ethics.

The General Secretary reported that, following a resolution at the meeting of the Federal Council in February, 1957, he had approached the Federal Government with a view to securing recognition by legislation of the protective emblem for civilian medical personnel in wartime, as adopted by the World Medical Association. It had been suggested in reply that the question would need to be considered on an international level. Dr. Mallen reported that the World Medical Association had the matter in hand. All the international

bodies concerned were now in agreement, and the next step was to seek international government recognition and ratification. That would probably be carried out through the World Health Organization.

The General Secretary referred to two reports that had been received from the World Medical Association, copies of which had been sent to Branches and to members of the Federal Council. One was a report by the Medical Ethics Committee on professional secrecy and sickness insurance. The other was the report of a joint committee of the International Committee of the Red Cross, the International Committee on Military Medicine and Pharmacy, the World Medical Association and the World Health Organization (observer), and dealt with draft regulations in time of armed conflict.

Road Accidents.

The General Secretary referred to correspondence and discussions that had resulted from the resolution of the meeting of the Federal Council in February, 1957, relating to road accidents. He reported that the question had still to be discussed with the Federal Minister for Health.

Passport of the Australian Representative on Council.

The General Secretary reported that, as a result of the resolution of the Federal Council at its meeting in February, 1957, he had made application to the Department of External Affairs for the granting of a quasi-diplomatic passport to Dr. L. R. Mallen as representative of the Federal Council on the World Medical Association. Advice had been received subsequently from the Minister for External Affairs that the request could not be granted, as such passports were made available only to those engaged in official government business.

Social Security in France.

A report was received from the World Medical Association relating to social security in France and the modification projects of the present Minister of Social Affairs.

The Role of the Hospital in the Public Health Programme.

Two reports were received relating to the role of the hospital in the public health programme. One was a report dealing with the practising doctor's evaluation of this role, prepared by Dr. Louis H. Bauer, the Secretary-General of the World Medical Association. The other was an article on the subject by Dr. J. M. Mackintosh, which had been presented to the World Health Organization at a recent meeting in Geneva. Copies of the reports had been sent to the Branches and to the members of the Federal Council.

REPATRIATION DEPARTMENT.

Local Medical Officers.

At the meeting of the Federal Council in February, 1957, it had been decided that, as the application for increased fees for payment of local medical officers had been refused by the Repatriation Department, it should be recommended to Branch Councils that local medical officers be asked to resign their appointments if advised to do so by the Federal Council. Having communicated with the Branches, the Federal Council decided to make a further approach to the Repatriation Department, in an attempt to obtain an increase to the amounts previously requested (namely, 15s. for a consultation and 17s. 6d. for a visit) in the fees payable to local medical officers.

A letter was received from the Chairman of the Repatriation Commission, stating that the Commission had at present under consideration the question of introducing a voucher system in relation to the payment of local medical officers' accounts, along similar lines to that at present in operation with the Commonwealth Department of Health under the Pensioner Medical Scheme. The Federal Council decided to defer action on the matter, as there had not been sufficient time for the views of all the Branches to be obtained.

Medical Benefits for Widows, Widowed Mothers and Orphans of Deceased Ex-Servicemen.

The question of the mode of payment and rates for attendance on widows, widowed mothers and orphans of deceased ex-servicemen was again considered. The General Secretary reported that subsequent to the previous meeting of the Federal Council the Victorian Branch Council had sent a letter, expressing the view that no further steps should be taken by the Federal Council to alter the service to war widows to a fee-for-service system until such time as the

fees paid by the Repatriation Department to local medical officers were raised to 15s. for a consultation and 17s. 6d. for a domiciliary visit, or until negotiations to obtain those fees had been abandoned.

The letter from the Victorian Branch had been referred to the other Branches. The Queensland Branch did not agree with the recommendation of the Victorian Branch, and considered that the Federal Council should continue to press for fee-for-service for war widows. The New South Wales Branch adhered to its previous decision that the fee-for-service method of payment should be introduced; it pointed out that this might mean the acceptance for the time being of the rate of remuneration now payable to local medical officers, but stressed the fact that such acceptance was of a temporary nature and arrangements should be made at an early date for an amended rate. The South Australian Branch did not support the Victorian Branch's recommendation, and expressed the view that the proposed change-over to a fee-for-service system should purely be regarded as a matter of principle. The Western Australian Branch stated that, although it agreed with the principle of fee-for-service system of payment, it considered that in this particular case the per-capita system should not be disturbed; its retention in this case might be of great value in possible future negotiations with the Government. The Tasmanian Branch supported the views of the Victorian Branch. After a vigorous discussion the Federal Council decided by a small majority that the Repatriation Department be asked to terminate the agreement for the payment on a per-capita basis of medical practitioners providing medical services to war widows and their dependants, and be requested to substitute in lieu thereof a fee-for-service method of payment. It was further decided that the approach should be deferred until after the receipt of a reply in regard to an increase in fees for local medical officers, provided that a reply was received from the Repatriation Department within three months.

The General Secretary reported the receipt of a letter from the Chairman of the Repatriation Commission, advising that the rates for attendance on widows, widowed mothers and orphans of deceased ex-servicemen for the financial year 1957-1958 were £4 4s. 10d. (metropolitan rate) and £5 4s. 6d. (country rate).

Form 70.

At its meeting in February, 1957, the Federal Council decided to approach the Repatriation Department and request that pads of prescription forms (Form 70) should be stapled and perforated, and should have a stiff cardboard backing. The General Secretary read a letter from the Chairman of the Repatriation Commission in which it was advised that the Commission had agreed to the suggestion, and arrangements had been made for it to be put into effect.

Form KK.

A letter was received from the Queensland Branch expressing the view that the present fee for the completion of Form KK was inadequate, and recommending that application be made to the Repatriation Department for an increase in the fee to £1 11s. 6d. The question was referred to the Branches. The New South Wales, Victorian and Tasmanian Branches supported the Queensland Branch. The South Australian and Western Australian Branches agreed that the fee should be increased, but thought that the figure should be £2 2s. The Federal Council resolved that a request be made to the Repatriation Department that the fee for the completion of Form KK be increased from £1 1s. to £1 11s. 6d.

Forms MF9a (1957) Revised and MPB230.

In response to a request from the Tasmanian Branch, which had been referred to the other Branches for their opinion, the Federal Council resolved to make a request to the Repatriation Department that the fee for the completion of Form MF9a (1957) Revised be £2 2s. and the fee for the completion of Form MPB230 be £1 11s. 6d.

Visiting Medical Officers, Repatriation Department Hospitals.

It was reported that, as a result of a letter received by the Federal Council at its meeting in February, 1957, from The Royal Australasian College of Physicians, two conferences were held between The Royal Australasian College of Physicians, the Royal Australasian College of Surgeons and the Federal Council of the British Medical Association. The Federal Council had been represented by the President. As a result, a report had been drawn up, containing a series of recommendations relating to the conditions of appointment

of visiting medical officers to the Department of Repatriation and the general organization of medical services within the Department. The report was signed by the presidents of the three bodies concerned.

The Federal Council resolved that a further approach should be made to the Minister for Repatriation, in regard to the matters referred to, and that the President be empowered to coopt a representative of each of the two Colleges concerned to any conference with the Minister.

SUPERANNUATION FOR SELF-EMPLOYED PERSONS.

Further discussion took place on the question of superannuation schemes for self-employed persons, consideration of which had been deferred from the previous meeting. The General Secretary referred to a copy of a letter forwarded to the Commonwealth Treasurer by the Secretary of the Law Council of Australia, written on behalf of other federal professional organizations as well as the Law Council. Dr. A. E. Lee and Dr. J. G. Wagner described the scheme that had been launched by the Queensland Branch, the draft trust deed of which had been at length approved by the Taxation Commissioner. It was pointed out that the scheme would in the future be controlled not by the Association but by the members who invested in it. After further discussion the Federal Council expressed the view that the establishment of superannuation schemes was a matter for individual Branches.

COMMONWEALTH EMPLOYEES' COMPENSATION ACTS.

The General Secretary referred to a request made by the Federal Council in 1953 to the Commissioner for Employees' Compensation for the adoption of a schedule of fees in respect of treatment of Commonwealth employees. A long letter had now been received from the Department of the Treasury, requesting information on scales of fees and various other matters. A suitable reply had been sent, providing the information requested. After discussion, the Federal Council resolved to inform the Commonwealth Government that it was no longer the policy of the Federal Council to enter into any further arrangements for a schedule of fees for the treatment of Commonwealth employees.

DEPARTMENT OF SOCIAL SERVICES.

Lecture by Professor Howard A. Rusk.

The General Secretary referred to a letter from Professor Howard A. Rusk, in relation to the transcript of a lecture which he had given at a meeting of the British Medical Association in New South Wales in November, 1956. Professor Rusk had expressed his appreciation of the very satisfactory transcript of his address.

Fees for Examination of Pensioners.

At its meeting in August, 1956, the Federal Council resolved to make strong representations to the Department of Social Services for an increase in the fee for examination of pensioners from £1 11s. 6d. to £2 2s. for each examination, plus a certain mileage allowance. The General Secretary reported that he had been in correspondence with the Director-General of Social Services on the matter, but advice was still awaited from the Treasury.

A letter was received from the Queensland Branch, expressing the opinion that the psychiatrist's fee for consultation and report on invalid pensioners should be £5 5s. The Federal Council adopted the view of the Queensland Branch, and resolved that the Department of Social Services should be so informed.

Rehabilitation.

Consideration was given to reports received from the State Branches in response to a request for information regarding the rehabilitation services in the several States, with suggestions for their improvement. Particularly full reports had been received from the Western Australian Branch, which had appointed a special subcommittee to consider the matter, and from the Queensland Branch. Dr. C. W. Anderson spoke of the need for coordination of rehabilitation services. The General Secretary referred to the fact that a coordinating body in New South Wales was making an honest attempt in this direction. After discussion, a resolution was adopted to the effect that the Federal Council desired to draw the attention of the Commonwealth and State authorities and voluntary agencies to the fact that it regarded the integration and coordination of rehabilitation services within each State as essential to progress in making rehabilitation treatment available to persons who needed

such services, and that State Branches be asked to investigate the possibility of sponsoring conferences at State level to discuss such integration and coordination.

The General Secretary then referred to a communication from the Western Australian Branch, relating to the difficulty experienced by those who had undergone rehabilitation in finding suitable employment. In particular, reference was made to the rigid medical standards required for acceptance as permanent employees in Commonwealth Government departments. It was pointed out that applicants might be debarred from such employment, although from a medical point of view their disabilities should not interfere in any way with their ability to cope adequately with the duties required in some of the advertised vacant appointments in the Commonwealth Public Service, or shorten their normal expectation of life. The Western Australian Branch Council recommended that the Federal Government should be asked to make special provision in the *Public Service Act* to allow for the employment of such persons, whose rehabilitation was not complete until they were again engaged in suitable employment. It was considered that such action by the Commonwealth would lead to similar provisions being adopted by State and other government instrumentalities, and ultimately to a widening of the assistance already given in this field by private industry. In subsequent discussion it was pointed out that a lead from the Commonwealth Government might well be followed by activity on the part of the individual States. Dr. C. W. Anderson stated that it was world-wide opinion that a handicapped individual in suitable employment might be better than a normal person. After further discussion, the Federal Council adopted the opinion that the most difficult problem facing handicapped persons was in being placed in suitable employment, either within the civil service or in industry, and it resolved to approach the Minister for Labour and National Service regarding this problem. The matter of the personnel of the deputation to the Minister was left in the hands of the President.

AUSTRALIAN SOCIAL WELFARE COUNCIL.

The General Secretary referred to the work of the Australian Social Welfare Council, the formation of which was an attempt by the voluntary agencies to coordinate the whole of the welfare work in Australia. They were anxious to remain free, but did desire government recognition. The General Secretary emphasized the importance of an interest in this work on the part of the British Medical Association, as an earnest of the profession's interest in people. He also referred to the financial problems of the Council, and pointed out that although the annual subscription for membership bodies was £5 5s. per year, larger sums were welcome. The Federal Council had made a subscription of £50 for the current year. Members of the Federal Council expressed approval of the work of the Australian Social Welfare Council, and it was pointed out in discussion that the bodies concerned altruistically sought to do what was the aim of every good practitioner, who was often not in the position to do it. It was resolved that the contribution of the Federal Council to the Australian Social Welfare Council for 1957 should be £100.

LIMBLESS SOLDIERS.

The General Secretary reported that, apparently as the result of the combined efforts of the Limbless Soldiers Association and the Federal Council, appreciable improvements had been effected in the provision of suitable limbs for those who had undergone amputation.

SHIPS' SURGEONS.

The General Secretary reported that further representations to the Australian Steamship Owners' Federation had not succeeded in persuading them to raise the remuneration for ships' surgeons, above the figure of £1000 per annum, plus fees from patients, but the Federal Council resolved to continue to press for a basic salary for ships' surgeons of £1500 per annum, plus fees from patients.

SALARIED MEDICAL OFFICERS.

Radiologists.

The General Secretary referred to correspondence and negotiations that had followed a letter from the College of Radiologists of Australasia, in which they had suggested that an attempt should be made to obtain uniformity in salaries and working conditions for full-time radiologists. The President described the negotiations which had been carried on in Victoria, and had resulted in the preparation of a model form of agreement. Letters received from the

State Branches indicated a wide variation in the salaries and conditions of full-time radiologists. The Federal Council resolved that the College of Radiologists be informed that the Federal Council was of the opinion that a uniform scale of salaries for the whole of Australia was impracticable and undesirable. They decided to ask the Victorian Branch to forward a copy of the agreement entered into between that Branch and the Hospitals and Charities Board of Australia for the payment of radiologists.

Salaries and Conditions of Hospital Staffs.

The General Secretary referred to a letter received from the Queensland Branch, asking for details of salaries payable to full-time medical staff of public hospitals in the various States. He had been in communication with the individual Branches, and as a result had compiled a comprehensive document on the salaries payable in each case. A copy had been made available to the Branches and to the members of the Federal Council.

Public Medical Officers.

A letter was received from the Honorary Secretary of the Public Medical Officers Association of New South Wales, which set out the objects and the achievements of the Association. It also stated that at the last annual general meeting of the Association, held in January, 1957, it had been recommended that an effort should be made to encourage other States to form similar Associations, leading perhaps eventually to a Federal Council. It was felt that an Australia-wide organization of salaried medical officers could do much to improve their status and, incidentally, their remuneration. As this was beyond the means of their own Association, it was thought that perhaps the Federal Council might take the matter up. The idea at the moment was that the organization in mind should be a separate body from the British Medical Association, but should have close association with it.

The letter had been referred to the Branches, which were in general opposed to the formation of an Association outside the British Medical Association. The Federal Council therefore resolved that in its opinion a Federal Association of Public Medical Officers was undesirable, and expressed the view that their interests were well guarded by the British Medical Association. It was decided that the New South Wales Public Medical Officers Association should be advised that their interests would be well served by the forming of special groups within the British Medical Association in each State.

ROAD ACCIDENTS.

The General Secretary referred to correspondence that had taken place with the chairman of the Australian Road Safety Council in regard to information about the proposed constitution of a committee to consider road accidents from the preventive medicine aspect. He also drew attention to a copy of statistics on causes of road accidents, issued by the New South Wales Department of Motor Transport.

MEDICAL SERVICES OF THE ARMED FORCES.

The President referred to the deputation which had waited on the Minister for Defence to discuss certain matters to do with the medical services of the armed forces, and a letter was read from the Minister, setting out certain action that had been taken as the result of the discussion.

MEDICAL MONOGRAPH FUND.

It was reported that the first of the monographs to be published under the Federal Council Medical Monograph Fund, "An Annotated Bibliography of the History of Medicine in Australia", by Dr. B. H. Gandevia, had been published. Five hundred copies had been printed; 200 were cloth-bound, and 300 had not yet been bound. The cost was just over £500. The retail price would be £1 15s.

The Treasurer presented a financial statement for the Fund for the period ended August 30, 1957. It showed a credit balance of £2535. Dr. Simmons pointed out that when the first monograph had been paid for, the Fund would still have a credit of approximately £2000.

DATE AND PLACE OF NEXT MEETING.

It was resolved that the next meeting would take place in Hobart, and would commence on Wednesday, February 26, 1958, at 10 a.m.

VOTES OF THANKS.

A vote of thanks was extended to the Council of the South Australian Branch for its hospitality, and for the use of its Council room, and to Dr. L. R. Mallen and Dr. C. O. F. Rieger for their hospitality, and to Mr. F. C. W. Dobbie and Mr. Stephens for their assistance. The Council thanked the President, Dr. H. C. Colville, for presiding. The Council also thanked Dr. J. G. Hunter, Dr. A. McNeil and Miss H. Cameron for their services during the meeting.

Out of the Past.

In this column will be published from time to time extracts, taken from medical journals, newspapers, official and historical records, diaries and so on, dealing with events connected with the early medical history of Australia.

THE QUEENSLAND MEDICAL SOCIETY.

[From the *Australasian Medical Gazette*, June, 1887.]

WE desire to call the attention of the other Medical Societies of Australasia to the excellent work that is being done by the recently reconstituted Medical Society of Queensland. At the meetings of all the Societies excellent and interesting papers are read by the members but the matter is generally allowed to drop without much discussion. At the Queensland Society's meetings things are different, the discussions are more lengthened and practical and the members express their opinions freely even though they may not be those generally accepted. The progress of practical medicine is so intimately connected with free discussion, that practice in Queensland undoubtedly receives material advancement by the aid of its Medical Society.

Royal Australasian College of Surgeons.

PRIMARY EXAMINATION FOR THE F.R.A.C.S.

A PRIMARY EXAMINATION in anatomy (including normal histology) and applied physiology and the principles of pathology will be conducted in Melbourne in March, 1958, for the F.R.A.C.S. The written papers will be held on Thursday and Friday, March 6 and 7, 1958. The examination is reciprocal with primary examinations for Fellowship of the Royal College of Surgeons of England, the Royal College of Surgeons of Edinburgh, the Royal College of Surgeons in Ireland and the Royal Faculty of Physicians and Surgeons of Glasgow. Each examination is open to graduates of not less than one year's standing of a medical school approved by the Council of the College for the purpose. Candidates must submit evidence of their qualification and of the date of acquirement thereof. Forms of application for admission to the examination may be obtained from the Secretary, Royal Australasian College of Surgeons, Spring Street, Melbourne. The fee for admission or readmission to the examination is £26 5s. (plus exchange on cheques drawn on banks outside Melbourne). The fee must be forwarded with the form of application so as to reach the Secretary at his office in Melbourne not later than January 24, 1958.

It is stressed that entries close at the College office in Melbourne on January 24, 1958, and that late entries cannot be accepted.

FACULTY OF ANÆSTHETISTS.

Primary Examination for the F.F.A.R.A.C.S.

A PRIMARY EXAMINATION in anatomy, physiology, pharmacology and pathology will be conducted in Melbourne in March, 1958, for the F.F.A.R.A.C.S. The written papers will be held on March 6 and 7, 1958. The examination is open to graduates of not less than one year's standing of an approved medical school. Candidates must submit evidence of their qualification and of the date of acquirement thereof. Forms of application for admission to the examination may

be obtained from the Secretary, Faculty of Anaesthetists, Royal Australasian College of Surgeons, Spring Street, Melbourne. The fee for admission or readmission to the examination is £26 5s. (plus exchange on cheques drawn on banks outside Melbourne). The fee must be forwarded with the form of application so as to reach the Secretary at his office not later than January 24, 1958. It is stressed that entries close at the Faculty office in Melbourne on January 24, 1958, and that late entries cannot be accepted.

Post-Graduate Work.

THE POST-GRADUATE COMMITTEE IN MEDICINE IN THE UNIVERSITY OF SYDNEY.

Week-End Courses in Dermatology.

THE Post-Graduate Committee in Medicine in the University of Sydney announces that two week-end courses in dermatology for general practitioners will be held in Sydney on November 9 and 10 and on November 16 and 17, 1957, under the supervision of Dr. A. Geoffrey Finley. Arrangements can be made for members of the course to attend out-patient clinics at the various hospitals in Sydney during the week's interval between these two week-end courses. Those wishing to avail themselves of these facilities are requested to notify the Committee when making application. Separate programmes are available for each of these courses.

First Course.

The programme of the first course is as follows:

Saturday, November 9, hall of the out-patient department, Lewisham Hospital: 9.30 a.m., introduction; 9.45 a.m., demonstration of interesting cases in out-patient department, Dr. J. B. Cahill; 11 a.m., "The Management of Acne Vulgaris", Dr. R. H. King; 11.30 a.m., "Rosacea", Dr. C. L. Bear; 12 noon, "Ano-Genital Pruritus", Dr. Brian McGaw.

Sunday, November 10, Scot Skirving Lecture Theatre, Royal Prince Alfred Hospital: 9.30 a.m., "Keloids", Dr. J. C. Bellisario; 10.10 a.m., "Recent Advances in Treatment", Dr. R. B. Perkins; 11 a.m., "Occupational Skin Disorders", Dr. E. J. C. Molesworth; 11.45 a.m., question time (round table), panel, Dr. J. C. Bellisario (chairman), Dr. R. B. Perkins, Dr. A. M. Johnson, Dr. E. J. C. Molesworth; 1.30 p.m., "Kodachrome" demonstration of dermatological conditions, Dr. A. M. Johnson; 2.15 p.m., "Vesicular Eruptions of the Hands and Feet", Dr. M. T. Havyatt; 3 p.m., "Treatment of Common Virus Infections of the Skin", Dr. F. J. Collett.

Second Course.

The programme of the second course is as follows:

Saturday, November 16, Maitland Lecture Theatre, Sydney Hospital: 9.30 a.m., case demonstration in out-patient department, Dr. L. G. Abbott; 11 a.m., "Psoriasis and Seborrhoeic Dermatitis", Dr. J. M. Rae; 11.45 a.m., "Stasis Ulcers and Dermatitis" (surgical aspects, Dr. J. M. Yeates; dermatological aspects, Dr. W. K. Myers).

Sunday, November 17, Maitland Lecture Theatre, Sydney Hospital: 9.30 a.m., "The Use of X-Ray Therapy in Skin Disorders", Dr. C. P. Kelly; 10.15 a.m., "Common Skin Diseases in Children", Dr. H. Sharp; 11 a.m., "The Widening Scope of Lupus Erythematosus", Dr. W. H. Ward; 11.45 a.m., "Kodachrome" demonstration of dermatological conditions, Dr. B. Florance; 2.15 p.m., "Nummular or Discoid Eczema", Dr. J. E. Cramer; 2.45 p.m., "Treatment of Contact Dermatitis", Dr. M. B. Lewis.

Method of Enrolment.

The fee for attendance on each course is £3 3s., and written application, enclosing remittance, should be made to the Course Secretary, The Post-Graduate Committee in Medicine, 131 Macquarie Street, Sydney. Telephone: BU 4497-8.

Post-Graduate Residencies in Anaesthesia.

The Post-Graduate Committee in Medicine in the University of Sydney announces that facilities are now available for full-time residential training of general practitioners in anaesthesia at the Lewisham Hospital for a minimum

DISEASES NOTIFIED IN EACH STATE AND TERRITORY OF AUSTRALIA FOR THE WEEK ENDED SEPTEMBER 14, 1957.¹

Disease.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern Territory.	Australian Capital Territory.	Australia.
Acute Rheumatism	1(1)	1	4	..	..	..	..	..	6
Amoebiasis
Ancylostomiasis	7	..	..	..	..	..	7
Anthrax
Bilharziasis
Brucellosis
Cholera
Chorea (St. Vitus)
Dengue
Diarrhoea (Infantile)	11(11)	..	..	2	..	..	..	13
Diphtheria	4(4)	..	..	..	4
Dysentery (Bacillary)	3	..	4	..	7
Encephalitis
Filariasis
Homologous Serum Jaundice
Hydatid
Infective Hepatitis	36(22)	11(4)	..	8(5)	..	2	..	1	58
Lead Poisoning
Leprosy	2	..	..	..	2
Leptospirosis	1	..	2	..	..	..	..	..	3
Malaria
Meningococcal Infection	1(1)	..	..	1(1)	..	..	..	2
Ophthalmia
Orafitosis
Paratyphoid
Plague
Poliomyelitis	1	..	..	..	..	..	..	..	1
Puerperal Fever	3(1)	..	..	..	..	..	..	..	3
Rubella	58(42)	5(5)	18(13)	5(5)	..	..	..	80
Salmonella Infection
Scarlet Fever	10(5)	4(4)	8(5)	4(4)	..	..	..	1	27
Smallpox
Tetanus
Trachoma	9	..	..	..	9
Trichinosis
Tuberculosis	36(19)	30(17)	3(1)	6(4)	6(3)	..	1	..	72
Typhoid Fever
Typhus (Flea-, Mite- and Tick-borne)
Typhus (Louse-borne)
Yellow Fever

¹ Figures in parentheses are those for the metropolitan area.

period of four weeks during the months of October, November and December, 1957. Fees are £6 6s. per week (including board and residence), and early application to the Committee is essential. Further details may be obtained on application to the Course Secretary, The Post-Graduate Committee in Medicine, 131 Macquarie Street, Sydney. Telephones: BU 4497-8. Telegraphic address: "Postgrad Sydney."

College of General Practitioners.

VICTORIA FACULTY.

Aaron Cohen Prize Essay.

In view of the recent, and prevailing, influenza epidemic in all States of the Commonwealth, the Executive of the Victoria Faculty of the College of General Practitioners have decided that the closing date for entries for the Aaron Cohen Prize Essay competition shall be extended from October 15 to November 15, 1957.

Congresses.

INTERNATIONAL CONGRESS OF BIOCHEMISTRY.

The fourth International Congress of Biochemistry will be held under the auspices of the International Union of Biochemistry in Vienna from September 1 to 6, 1958. All inquiries relating to participation or applications to read a paper should be addressed to the General Secretariat, 42 Währingerstrasse, Vienna IX, Austria.

Australian Medical Board Proceedings.

TASMANIA.

The following has been registered, pursuant to the provisions of the Medical Act, 1918, of Tasmania, as a duly qualified medical practitioner: Taylor, John Henry, M.R.C.S., L.R.C.P., 1937, D.A., 1940, F.F.A.R.C.S., 1953 (England).

Medical Appointments.

Dr. J. L. Evans has been appointed Senior Medical Officer, Mental Hygiene Branch, Department of Health, Victoria.

Dr. K. W. Walsh has been appointed Neuro-Psychiatric Medical Officer, Mental Hygiene Branch, Department of Health, Victoria.

Dr. N. T. Yeomans and Dr. B. A. Mezo have been appointed to the Division of Mental Hygiene, Department of Health, New South Wales.

Nominations and Elections.

The undermentioned have applied for election as members of the New South Wales Branch of the British Medical Association:

McDonnell, John Alexander, M.B., B.S., 1956 (Univ. Sydney), 20 William Street, Condobolin, New South Wales.

Swan, David Cheltham, M.B., B.S., 1954 (Univ. Sydney), 47 Addison Avenue, Roseville, New South Wales.

Chaffer, Ethel Valerie, M.B., B.S., 1947 (Univ. Sydney), 585 Olive Street, Albury, New South Wales.

The undermentioned have been elected as members of the New South Wales Branch of the British Medical Association: Clayton, Maxwell Richmond, M.B., B.S., 1954 (Univ. Sydney); Murdoch, Wallace Alexander, M.B., B.S., 1954 (Univ. Sydney); Endelman, Adolf Andrzej, LL.M., R.C.P. and S. (Ireland), 1954; Berkowicz, Leon, M.D., 1947 (Univ.

Milan), registered under Section 17 (2A) of the Medical Practitioners Act, 1933-1957; Shearer, Charles Allan, M.B., B.S., 1951 (Univ. Sydney).

The undermentioned have applied for election as members of the South Australian Branch of the British Medical Association:

Derrington, Arnold Ward, M.B., B.S., 1947 (Univ. Adelaide), 74 Northumberland Street, Tasmore, South Australia.

Miller, John Milton, M.B., B.S., 1956 (Univ. Adelaide), 12 Dunbar Terrace, Helmsdale, South Australia.

Wibberley, David John, M.B., B.S., 1955 (Univ. Adelaide), Tumby Bay, South Australia.

The undermentioned have been elected as a member of the South Australian Branch of the British Medical Association: Deland, Curtis George, M.B., B.S., 1954 (Univ. Adelaide).

Diary for the Month.

OCT. 8.—New South Wales Branch, B.M.A.: Executive and Finance Committee.

OCT. 8.—New South Wales Branch, B.M.A.: Organization and Science Committee.

OCT. 11.—Queensland Branch, B.M.A.: Council Meeting.

OCT. 11.—Tasmanian Branch, B.M.A.: Branch Council.

OCT. 12.—Victorian Branch, B.M.A.: Country Branch Meeting.

OCT. 14.—Victorian Branch, B.M.A.: Finance Subcommittee.

Medical Appointments: Important Notice.

MEDICAL PRACTITIONERS are requested not to apply for any appointment mentioned below without having first communicated with the Honorary Secretary of the Branch concerned, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

New South Wales Branch (Medical Secretary, 135 Macquarie Street, Sydney): All contract practice appointments in New South Wales.

Queensland Branch (Honorary Secretary, 88 L'Estrange Terrace, Kelvin Grove, Brisbane, W.1): All applicants for Queensland State Government Insurance Office positions are advised to communicate with the Honorary Secretary of the Branch before accepting posts.

South Australian Branch (Honorary Secretary, 80 Brougham Place, North Adelaide): All contract practice appointments in South Australia.

Editorial Notices.

ALL articles submitted for publication in this Journal should be typed with double or treble spacing. Carbon copies should not be sent. Authors are requested to avoid the use of abbreviations and not to underline either words or phrases.

References to articles and books should be carefully checked. In a reference the following information should be given: surname of author, initials of author, year, full title of article, name of journal, volume, number of first page of the article. The abbreviations used for the titles of journals are those adopted by the Quarterly Cumulative Index Medicus. If a reference is made to an abstract of a paper, the name of the original journal, together with that of the journal in which the abstract has appeared, should be given with full date in each instance.

Authors who are not accustomed to preparing drawings or photographic prints for reproduction are invited to seek the advice of the Editor.

Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary is stated.

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